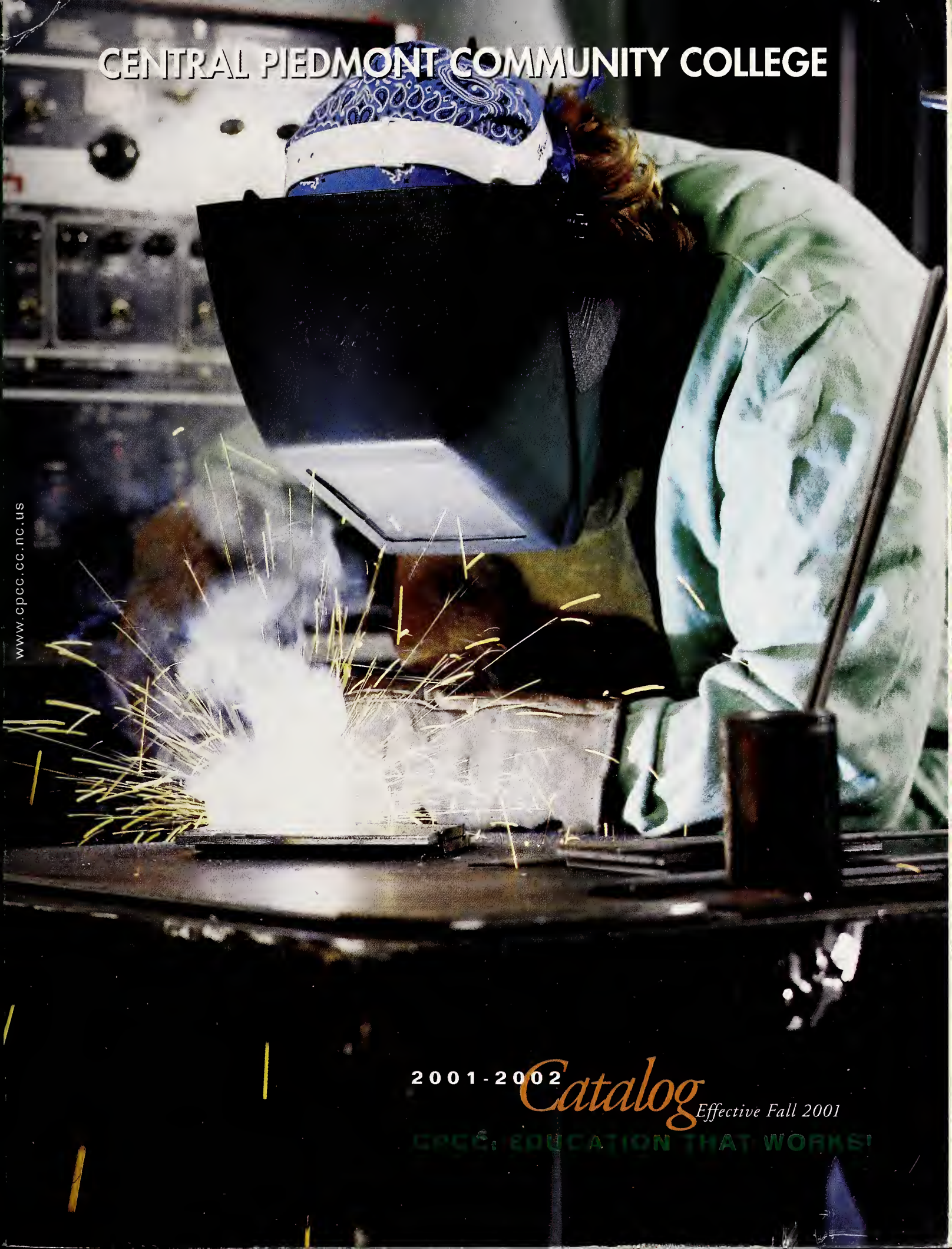
CENTRAL PIEDMONT COMMUNITY COLLEGE



www.cpcc.cc.nc.us

2001-2002 *Catalog*

Effective Fall 2001

CPCC: EDUCATION THAT WORKS!

Disclaimer: Please Note

The information in this Catalog is presumed correct at the time of printing. However, the reader should be aware that the programs, regulations, policies, and other information contained in this Catalog are subject to change without notice. If you have questions about any Catalog information and are a CPCC student, please contact your faculty advisor, program chair, or instructor. Information about Central Piedmont Community College's graduation and transfer rates are available upon request from the office of the Dean for Student Development at 704/330-6888. Campus crime statistics are available for review on the College website, in the student handbook and at campus security offices and reception areas. For other inquiries or clarifications, please contact the Office of the Vice President for Instruction, CPCC, P.O. Box 35009, Charlotte, NC 28235-5009.

CENTRAL PIEDMONT COMMUNITY COLLEGE

Directory

General College Information

(704) 330-2722 (704) 330-CPCC
Mondays – Thursdays: 8:00 a.m. to 6:00 p.m.
Fridays: 8:00 a.m. to 5:00 p.m.
An Automated Information Attendant is Available After Hours.

Please see the White Pages in the Charlotte Telephone Directory for specific CPCC listings.

College Mailing Address

P.O. Box 35009, Charlotte, NC 28235-5009

College Package Delivery

101 North Kings Drive, Charlotte, NC 28204

College Internet Address

www.cpcc.cc.nc.us

College Locations

Central Campus — (704) 330-2722 — 1201 Elizabeth Avenue, Charlotte NC 28204

City View Center — (704) 330-5910 — 1609 Alleghany Street, Charlotte, NC 28208

College Without Walls — (virtual campus) — http://cww.cpcc.cc.nc.us

North Campus — (704) 330-4100 — 11930 Verhoeff Drive, Huntersville, NC 28078

North Campus Annex— (704) 330-4223 — 6605-F West WT Harris Blvd., Charlotte, NC 28269

Northeast Campus — Future Site — At the corner of Harris Boulevard and Grier Road

South Campus — (704) 330-4200 — 2800 Campus Ridge Road, Matthews, NC 28105

Southwest Campus — (704) 330-4400 — 315 West Hebron Street, Charlotte, NC 28273

West Campus — (704) 330-4600 — 3210 CPCC West Campus Drive, Charlotte, NC 28208

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Changes

• CPCC reserves the right to change its regulations, policies, fees, and programs without notice.

CPCC Catalog and CPCC Class Schedules

• Not all courses in this Catalog are offered each term.

• **Class Schedules, listing times and locations of classes, are distributed in Mecklenburg County approximately six weeks prior to the beginning of each term.**

• Catalogs and Class Schedules may be obtained at the Welcome Center on the Central Campus including www.cpcc.cc.nc.us, or at any other CPCC location.

Equal Opportunity/Affirmative Action

In compliance with federal law, including the provisions of Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, and the Americans With Disabilities Act. Central Piedmont Community College does not discriminate on the basis of age, color, ethnic or national origin, handicap, military service, race, religion, or sex in its administration of education policies, programs, or activities; its admissions policies; scholarship and loan programs; or employment. Inquiries or complaints should be directed to the Director of Equal Opportunity, Room 513, Terrell Administration Building, (704) 330-6424.

Open Door Policy

CPCC has an open-door admission policy for applicants who are high school graduates or who are at least 18 years of age. Admission to the College is open without regard to race, creed, disability, national origin, sex, or age to any student who meets the graduation or age standard.

Some degree programs have specific requirements for admission. These requirements are available from the Division Director or a Program Counselor.

Tuition

Tuition is set by the North Carolina State Board of Community Colleges and is subject to change without notice.

Central Piedmont Community College is an equal opportunity/affirmative action institution. Auxiliary aids will be available for individuals with disabilities upon request 10 working days in advance of the event. CPCC is accredited by the Commission on College's of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award associate degrees, diplomas, and certificates. CPCC reserves the right to change its regulations, policies, fees, and programs without notice. Information about Central Piedmont Community College's graduation and transfer rates is available upon request from the office of the Dean for Student Development. The Dean's office can be reached at (704)330-6888. Campus crime statistics are available for review on the College website, in the student handbook and at campus security offices and reception areas.

Project Coordinator: Mitchell Hagler, Assistant to the Vice President for Instruction, CPCC. 50,000 copies of this document were produced by the CPCC Community Relations and Marketing Services Department. CPCC 07/11/01.

Board of Trustees

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Vincent James ..... Vice Chairman
P. Anthony Zeiss. ..... Secretary

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Central Campus

Deck 1: Enter right only off Elizabeth Ave. going toward Independence Blvd. Usually fills by 8:30am

Deck 2: Enter right only off Fourth St. coming from Independence Blvd. Usually fills by 9am

Lot 3: Enter left or right off Elizabeth Ave. Usually fills by 9am

Lots 4-5: Enter right off Kings Dr. (2 entrances). Usually fills by 7:30am

Lot 6: Enter left or right off Armory Dr. Usually fills by 9am

Lot 7: Enter left or right off Armory Dr. Usually fills by 8:30am

Lot 8: Enter left or right off Seventh St. Usually fills by 10am

Lot 9: Enter right off Kings Drive

Lot 10: Enter left or right off Elizabeth Ave. Usually fills by 10am

Lot 11: Enter off Cherry St. coming from Independence Blvd. or 3rd Street. Usually fills by 8:30am

Lot 12: Enter right SW corner of Independence and Elizabeth. Usually fillls by 10am

Lot G: Parking by special permit only. Enter right only off Elizabeth Ave. onto Pease Lane.

Lot H: Visitor parking only. No student parking. Enter right off Kings Dr. or Elizabeth Ave.

Mission



Mission Statement

Central Piedmont Community College

Purpose

Central Piedmont Community College is an innovative and comprehensive public two-year college with a mission to advance the life-long educational development of adults consistent with their needs, interests, abilities, and efforts, and to strengthen the economic, social, and cultural life in the Charlotte-Mecklenburg region of North Carolina.

The College accomplishes this purpose by providing high-quality, flexible educational programs and services which are academically, geographically, and financially accessible, and which meet individual and community needs. This purpose requires a fundamental commitment to teaching excellence and a supportive, caring student environment.

History of the College

Central Piedmont Community College's history centers not so much on bricks and mortar, books and tapes, or research and development. The history centers more on the many people who have played a role in developing the College. A host of unsung heroes — from secretaries to counselors to faculty to administrators — have dedicated themselves to building the great institution that is CPCC.

Since its beginning, the College has been a national pacesetter in education. Standouts on the CPCC roster include a Pulitzer Prize winner, a Metropolitan Opera star, an Olympic gold medalist, a Congressional Medal of Honor winner, a television actress, and a pro football player. Countless others — chefs, healthcare providers, technicians, real estate brokers, paralegals, firefighters, law enforcement officers, trades people, and others who serve our community — share CPCC's proud tradition.

CPCC has been providing educational opportunities since 1963, the year that the North Carolina General Assembly passed the community college bill. Opening as a fully integrated institution, under the direction of Dr. Richard H. Hagemeyer, the founding president, the College combined the programs of Central Industrial Education Center (CIEC) on Elizabeth Avenue and Mecklenburg College on Beatties Ford Road.

The College sold its property on Beatties Ford Road and developed a campus around the old Central High School complex. Starting with 3.94 acres, the College bought surrounding property, demolished buildings, and closed streets to build the beautiful, tree shaded, 31-acre Central Campus that students and faculty now enjoy.

From the start, the College was different in its teaching methods. CPCC soon gamered national recognition for its individualized instruction and computer-assisted instruction. In 1970, the College was invited to join the prestigious League for Innovation in the Community College, and today it is still an active member. In 1985, CPCC was named one of the nation's top five community colleges in teaching excellence.

CPCC has grown from a small College with a dozen programs serving 1,600 students to one with over 100 degree, diploma, and certificate programs serving approximately 60,000 students in an array of credit and non-credit offerings. The College has also become the county's premier workforce development resource, offering its educational services through area learning centers, a Corporate Training Center, and at many high schools and businesses.

After Dr. Hagemeyer's retirement in 1986, Dr. Ruth Shaw became the College's second president. Under her leadership, the College added the Advanced Technologies Center and the Center for Automotive Technology and began acquiring land for multi-campuses.

Dr. Tony Zeiss, CPCC's third president, has led the College since December 1992. He is devoted to the mission of CPCC and to serving students and the community through customized training and workforce development. Under his direction, CPCC became a multi-campus community college in 1996 with the conversion of the North Area Learning Center in Huntersville to the North Campus. Three other campuses subsequently opened — the new South Campus in 1998, the new Southwest Campus in 1999, and the new West Campus in 2001. With the projected opening of the Northeast Campus in 2002, CPCC will have full-service campuses across Mecklenburg County.

The College is currently embarking on more capital improvements and expansion to serve the growing region. As always, the College is growing because the citizens of Mecklenburg County know their investment in CPCC is changing their lives for the better.

The Educational Vision Of CPCC

In 1993, the CPCC Board of Trustees adopted the following vision statement: As Charlotte's premier workforce development resource, CPCC intends to become the national leader in workforce development.

The College community envisions a future for this growing metropolitan area where there is a strong sense of community and life is rewarding - a future built upon the full participation and success of all citizens and the best possible use of human, financial, and natural resources:

We will take a vigorous leadership role in identifying and addressing the issues which are pivotal in making this vision a reality, for we recognize that our present and future are closely entwined with the health and vitality of the greater Charlotte-Mecklenburg region.

Central to our effort is maintaining excellence as we adapt our comprehensive programs and services to meet the educational needs of a constantly changing, technically advanced, interdependent, and complex world. More than ever before, students need advanced communication and computation skills and the mental agility to acquire and apply knowledge throughout their lives. They also need to develop attitudes which support personal development and ethical understandings which will build community, both regional and global. CPCC's leadership role requires us to explore new academic and administrative paths in the way we educate and support our students. As we grow and change, we will reflect on our efforts and demonstrate accountability for the proper and wise use of resources. We will pursue new and better ways to assess student learning and experience so that both we and our students can improve our effectiveness.

CPCC's educational vision will be realized in an increasingly diverse community and world. Although diversity presents many challenges, we perceive diversity as a strength. Our students mirror the community, coming to us with differences in academic preparation and intent, demographic and socio-economic backgrounds, and cultural/ethnic influences. In honoring our commitment to the open-door concept, we are determined to provide the appropriate support which gives meaning to access.

We realize we cannot achieve this vision alone; partnerships with other institutions, in our area and beyond, are critical factors in our success. We believe that building a teaching and learning community in its broadest and best sense, encompasses a concern for the whole, for integration and collaboration, for openness and integrity, for inclusiveness and self-renewal.

Programs and Services

To carry out CPCC's mission, the College provides educational programs and services in the following areas:

• ***Business, Community Service, Health, and Technology Programs***

The cornerstone of the Community College System in North Carolina is the preparation of students for a first career, career change, and career advancement to meet individual goals and regional needs. The College provides career programs in a broad range of occupational areas. Associate in Applied Science degrees and shorter term diploma and certificate programs are offered. In support of these programs, the College continues to form major partnerships with business and industry and incorporate advances in technology.

AAS degree graduates develop marketable employment skills and college-level academic skills. In some cases, courses within the programs are transferable to colleges and universities. Non-degree seeking students reach other career goals such as updating job skills, career advancement, and re-entry into the work force with marketable skills.

• ***Transfer Programs***

From its inception, the College has provided the first two years of study in the arts and sciences and pre-professional fields for those students who wish to transfer to four-year colleges and universities. Students are able to transfer courses or an associate degree to four-year colleges and have the background and skills to succeed in their further studies. Graduates have a foundation in their areas of specialization, have college-level academic skills, and have successfully completed the general education core curriculum.

• ***A Comprehensive Articulation Agreement***

In 1996, the North Carolina Community College System and the University of North Carolina developed a comprehensive articulation agreement to address the transfer of North Carolina Community College students to the constituent institutions of the University of North Carolina system. Graduates with the AA and AS degrees who complete the agreed general education transfer core will receive junior status and will be considered to have fulfilled the institution-wide, lower division, general education requirements for any University of North Carolina institution if admitted to the university.

• ***Queens Bound Articulation Agreement***

Queens Bound is a unique opportunity for highly motivated CPCC students working toward AA, AS or AFA degrees to continue at Queens College to earn Bachelor's Degrees. Queens Bound students who enroll full time in the College of Arts and Sciences at Queens are guaranteed up to $5,000 in scholarship assistance.

• ***Basic Skills Programs***

A basic premise of the community college movement is the expansion of educational opportunities for all adults, and basic skills programs are designed to provide the necessary skills and confidence for successful employment and further education. CPCC provides opportunities to learn basic literacy and functional living skills, while Adult High School and GED programs assist students in completing high school. Developmental education classes in reading, English, math, and science attract high school graduates whose placement tests indicate that they need additional instruction to support their success in higher level courses.

• ***Corporate and Continuing Education***

The economic development of the Charlotte-Mecklenburg region is the major role of Corporate and Continuing Education. The College provides programs and services specifically designed to meet the training and re-training needs of business and industry and other area organizations. Individual career goals for the general adult population are also met through CCE offerings. The formation of dynamic partnerships with community organizations and business and industry is often a critical component in meeting these needs.

The College also provides programs and services for the general adult population which stress life-long learning in the areas of academic, cultural, social, recreational, and personal development.

• ***Community Service***

Central Piedmont's community service programs are widely known for their responsiveness and high quality in the Charlotte-Mecklenburg region. The College provides a wide range of cultural and artistic events, speakers, professional and technical assistance, and civic education, as well as the sharing of College facilities with the local community.

• ***International Programs and Services***

In 1999, CPCC combined many of its programs and services to meet the needs of the region's growing international population. Students from many nations may access several levels of credit and non-credit English language classes through the International Programs and Services Office.

• ***Student Development and Support***

Student development services is committed to providing quality educational support to ensure student success for the diverse student population. The College provides services for recruitment and enrollment, for academic advising, for career and personal counseling, for student activities, and for special populations including first-generation college students and students with disabilities. The faculty plays a supportive role in these endeavors.

Students receive timely and accurate information about College programs and services and receive assistance in their academic, career, and personal development. The degree to which student support services are effective has a major impact on student success.

• ***Instructional Development and Support***

CPCC is a leader among community colleges in instructional development and support. Experimentation and innovation in instruction and the use of alternative instructional delivery systems remain major initiatives.

The College provides support for instructors to experiment with non-traditional modes of teaching and learning through classroom research, through the use of technology incorporated into the classroom, and through alternative delivery systems and scheduling. The College provides library, media, and technology services which give support to instructors and students to enhance the teaching and learning process.

• ***Administrative Support***

CPCC administration provides effective leadership by setting the tone and direction and by granting employees the authority and resources to carry out their duties.

The College efficiently and effectively expends its resources and is committed to maintaining a leadership role in its utilization of personnel and facilities. The College provides the organizational support areas of institutional research and planning, staff and resource development, and marketing and community relations. Effective administrative processes allow the College to focus on its primary mission of providing educational programs and services.

Institutional Values

Shared values and clear expectations affect how well CPCC succeeds in accomplishing its mission. Based upon this belief, we hold the following institutional values:

• ***Worth and Dignity of the Individual***

We believe that each person is important. We appreciate the diversity in the students we serve and in ourselves. We are com-

mitted to the policies of equal opportunity for employees. We treat others with respect and fairness.

• ***Individual Growth and Development***

We value the talent and abilities of our faculty and staff. We try to bring out the best in our students and ourselves. We believe that meaningful and productive work encourages individual initiative and offers fulfillment. We assist student growth toward productive citizenship, self-direction, and personal responsibility. We encourage professional development and growth for all employees.

• ***Accessibility***

We recognize that many diverse barriers hinder student access to educational opportunities. We are committed to recruit and provide services to populations traditionally underserved by higher education because of these barriers. In this endeavor, campus expansion, innovation and technology play key roles.

• ***Excellence***

We value a job well done and believe that each individual strives for excellence. We aim for the highest level of professionalism, competence, and productivity as standards for our college. We aim for responsible participation and high achievement as standards for our students and ourselves.

• ***Innovation***

We value the flexibility and diversity of our human resources and realize that there are varied approaches in carrying out our mission. We promote innovation and responsible experimentation.

• ***Community***

We believe that a strong and vibrant community can only be built on the full participation and success of all of its citizens within a healthy social and economic environment. This concept encompasses our local community and the larger state, national, and global communities. We value relationships with other institutions in our region and beyond and recognize the need to work together and avoid unnecessary duplication of effort in our common goal to reach the total population.

• ***Accountability***

We recognize that we hold the institution in trust for the citizens and employers of Charlotte-Mecklenburg, serving as stewards for our human, financial, and physical resources. We are accountable for our use of these resources to reach our mission. We document our progress in an on-going program of institutional effectiveness and use the results of assessment to improve programs and services.

Accreditation

Central Piedmont Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4501) to award associate degrees, diplomas and certificates. The College is also accredited by the following organizations:

Technology Accreditation Commission of the Accreditation Board for Engineering and Technology
111 Market Place, Suite 1050, Baltimore, MD 21202
Telephone 410-347-7700
- Computer Engineering Technology
- Electrical Engineering Technology
- Electronics Engineering Technology
- Manufacturing Engineering Technology
- Mechanical Engineering Technology

American Bar Association
- Paralegal Technology

American Dental Association Commission on Dental Accreditation
- Dental Hygiene
- Dental Assisting

Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association
- Physical Therapist Assisting

Commission on Accreditation of Allied Health Education Programs (CAAHEP) on Recommendation of Cytotechnology Programs Review Committee of the American Society of Cytopathology
- Cytotechnology

Commission on Accreditation of Allied Health Education Programs (CAAHEP) on Recommendation of the Committee on Accreditation for Health Information Education
- Health Information Technology

Commission on Accreditation of Allied Health Education Programs (CAAHEP) on Recommendation of the Committee on Accreditation for Medical Assistant Education
- Medical Assisting

Commission on Accreditation of Allied Health Education Programs (CAAHEP) on Recommendation of the Committee on Accreditation for Respiratory Care
- Respiratory Therapy

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
- Medical Laboratory Technology

National Automotive Technician Education Foundation
- Automotive Technology
- General Motors Automotive Service Education Program
- Toyota Technical Education Network Program
- Cooperative Automotive Service Technology

National Accrediting Agency for Clinical Laboratory Sciences
- Medical Laboratory Technology

National Board for Certified Counselors
- Human Services Technology
- Substance Abuse
- Gerontology
- Developmental Disabilities

North Carolina State Board of Community Colleges

North Carolina State Board of Nursing
- Christa A. Overcash Associate Degree Nursing Program

North Carolina Criminal Justice Education and Training Commission
- Basic Law Enforcement Technology

North Carolina Substance Abuse Professional Certification Board
- Substance Abuse Program

Memberships

Central Piedmont Community College is a member of the following educational associations and agencies:

- American Association of Community Colleges
- American Association for Higher Education
- American Council on Education
- Charlotte Region Workforce Development Partnership
- COMBASE
- Community College Consortium
- League for Innovation in the Community College
- North Carolina Association of Community College Trustees
- Southern Association of Colleges and Schools
- The Charlotte Chamber

Charlotte Area Educational Consortium

CPCC is a member of the Charlotte Area Educational Consortium which includes the following area higher education institutions:

Barber-Scotia College, Concord, NC
Belmont Abbey College, Belmont, NC
Catawba College, Salisbury, NC
Catawba Valley Community College, Hickory, NC
Cleveland Community College, Shelby, NC
Davidson College, Davidson, NC
Gardner-Webb University, Boiling Springs, NC
Gaston College, Dallas, NC
Gordon-Conwell Theological Seminary, Charlotte, NC
Johnson C. Smith University, Charlotte, NC
Lenoir-Rhyne College, Hickory, NC
Livingston College, Salisbury, NC
Mitchell Community College, Statesville, NC
Pfeiffer University, Charlotte, NC
Queens College, Charlotte, NC
Rowan-Cabarrus Community College, Salisbury, NC
South Piedmont Community College, Polkton, NC
Stanly Community College, Albemarle, NC
University of North Carolina at Charlotte, Charlotte, NC
University of South Carolina at Lancaster, Lancaster, SC
Wingate University, Wingate, NC
Winthrop University, Rock Hill, SC
York Technical College, Rock Hill, SC

Among several Consortium activities is a cross-registration program that enables students to take certain courses not offered at CPCC at other Consortium schools. CPCC students are also given the opportunity to attend ROTC at UNC-Charlotte.

For information, call (704) 330-6039.

CPCC Foundation, Inc.

The CPCC Foundation exists solely for the benefit of the College and its students.

The Foundation solicits gifts from individuals, corporations and foundations. These gifts are used for student scholarships, instructional equipment and other capital projects; for new program funds, innovation and recognition awards, and endowment funds plus a variety of other needs not met through traditional funding sources.

An annual CPCC Charlotte Skyline Run is sponsored by the Foundation. The Foundation also raises funds through an Automobile Donation Program. Additional ways to support the work of the Foundation include gifts of cash or securities, bequests and other estate plans. Contributions may be given outright or through a pledge program and extended over a period of time. They may be designated for specific programs and projects. Honorariums and memorial funds may be established.

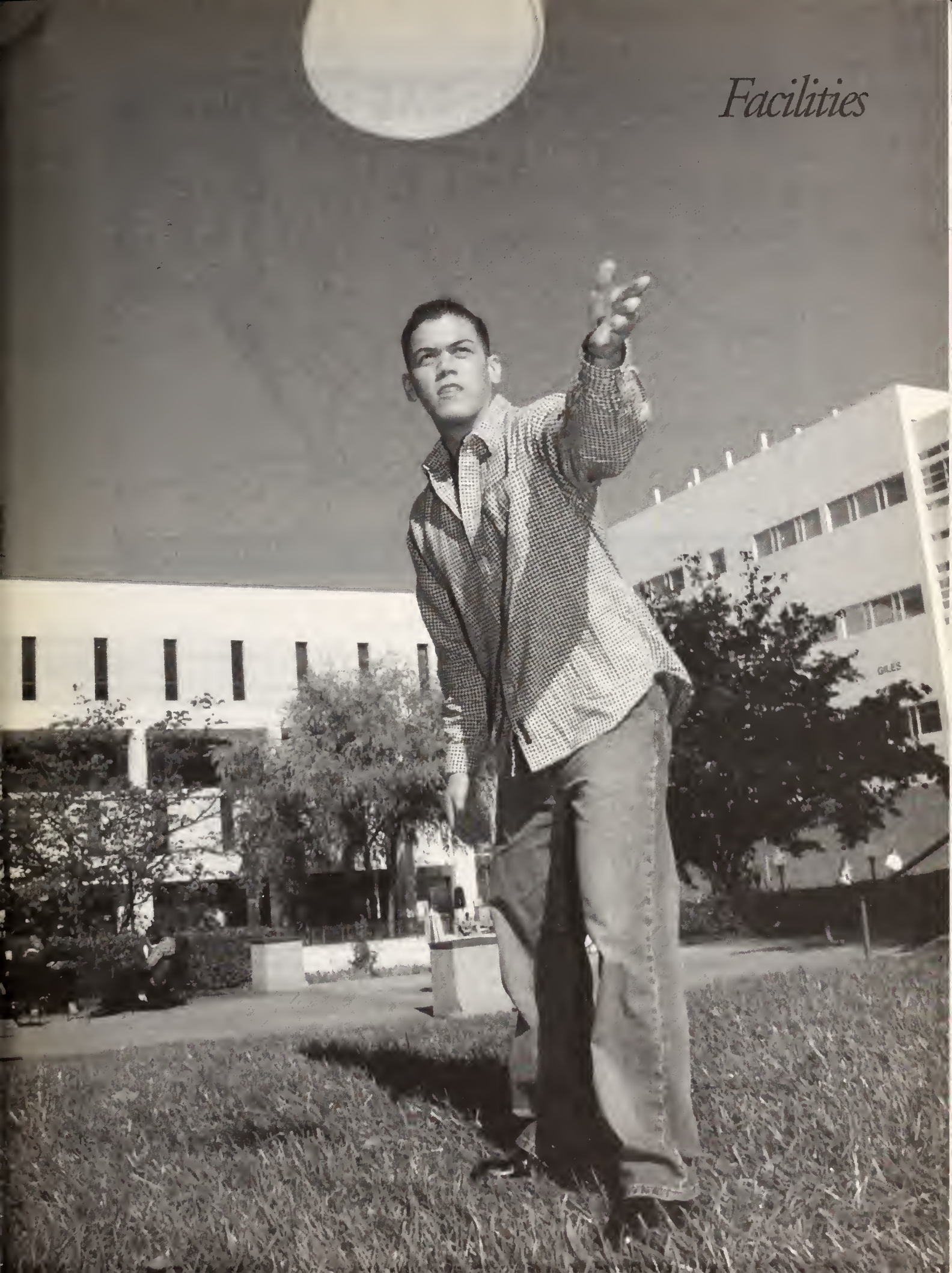
All donations for the College should be directed to the Central Piedmont Community College Foundation, a 501(c)3 organization, qualified to receive tax-deductible contributions. The address is:

The CPCC Foundation, Inc.
Post Office Box 35009
Charlotte, NC 28235-5009

For more information, call (704) 330-6869.



Facilities





Central Campus

Major Programs/Courses

The Central Campus offers the following programs/courses:

Architectural Technology
Autobody/Automotive
Business and Accounting
Cardiovascular Technology
Civil Engineering Technology
College Transfer Courses
Computer Engineering Technology
Computer Programs
Culinary Technology
Cytotechnology
Dental Hygiene
Early Childhood
Electrical Engineering Technology
Electronic Engineering Technology
Health Information Technology
Hotel Restaurant Management
Human Services Technology
Information Systems
Machining Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Medical Assisting
Medical Laboratory Technology
Medical Office Administration
Nursing
Office Systems Technology
Physical Fitness Technology
Physical Therapist Assistant
Respiratory Care
Surveying Technology
Telecommunications and Network Engineering Technology
Visual and Performing Arts

Services

At the Central Campus location students can submit CPCC admissions forms, have college skills assessed, register for classes, pay tuition, buy books, attend classes and do lab work in accounting, business, advancement studies, and computer science.

Facilities

The Central Campus includes paved and well-lighted parking areas. For the safety and protection of students, all campus parking decks and lots are randomly patrolled. Students may use any parking lot except those reserved for faculty, staff, and visitors. Access to student parking areas is controlled by "free in/pay out" gates which operate automatically. Parking access cards may be purchased in the College Bookstore or in the Cashier's office. A parking brochure which explains parking locations and regulations on the Central Campus is available at the Welcome Center, the Student Life Center and other various locations.

The Registration Center is located on the second floor of the Garinger Building. Students may update information, register for classes, and seek counseling services in this area.

The Welcome Center is located on the second floor of the Garinger Building. The Welcome Center provides information and materials about CPCC. The center is open Monday through Thursday from 7:30 a.m. – 6:00 p.m. and Friday 7:30 a.m. – 5:00 p.m. Hours are expanded during Registration and the first two weeks of each term.

The Testing and Assessment Center is located on the second floor of the Garinger Building. The Center administers a wide variety of tests for instructional, placement, diagnostic, certification, licensure, and other special purposes. It also serves as a national center for administering the College Level Examination Program (CLEP).

Pease Auditorium, located within the Learning Resources Center, seats 478. It contains a theater stage, sound and lighting equipment, and accommodates classes, theater productions, concerts, lectures, and meetings.

Bookstore

Central Campus

The R. Powell Majors Central Campus Bookstore, located at 1210 Elizabeth Avenue, provides the largest selection of both new and used textbooks to support the College's educational mission and faculty/staff needs.

Allied health books and supplies, formerly located in the Health Science Bookstore, are available in the Central Campus Bookstore. The Central Campus Bookstore stocks many medical reference titles, software, and various products related to the health sciences. It has access to over 40,000 medical titles that can be ordered and shipped directly from our supplier.

For textbook information, including prices, please access the internet at: bookstore.cpcc.cc.nc.us or you may call CHRIS at (704) 330-6970.

The bookstores web page may be accessed from the college's web page or by **http://bookstore.cpcc.cc.nc.us.** Books can now be ordered on the web.

The Central Campus Bookstore is open Monday - Thursday, 7:30 a.m. - 7:30 p.m. and Friday, 7:30 a.m. - 4:30 p.m. Extended bookstore hours are scheduled at the beginning of each term to accommodate peak traffic. Hours during summer term, and when class is not in session, are subject to change. Please call 330-6587 for exact times.

The bookstore has new books, used books, supplies, and other course-related items needed by students. Special orders are gladly accepted. In addition the Bookstore carries CPCC imprinted apparel, software, greeting cards, magazines, candy, snacks, postage stamps, and various other items.

An ATM machine, a low cost copy machine, and laminating services are also located at this location.

Used books in good condition are purchased by the Bookstore daily. Buyback hours are during regular store hours.

For further information, please call (704) 330-6649.

Chick-fil-A / Lil Dino

Central Campus

The CPCC Chick-fil-A and Lil Dino deli and grille are located on the first floor of the Van Every Building on Central Campus. Deli sandwiches, french fries, salads, soups, and a wide variety of snacks and beverages are available, as well as the standard Chick-fil-A menu. Both units are open Monday - Thursday, 7:00 a.m. - 7:30 p.m. and Friday, 7:00 a.m. - 2:00 p.m. Hours during summer term and when class is not in session are subject to change. For further information, please call 330-6149 (Chick-fil-A) or 330-5495 (Lil Dino).

Library Services

Each campus library has a collection of print and non-print materials particularly suited to the objectives and programs of that location. Library resources include: the general book collection, reference books, bound and unbound periodicals, microforms, media, electronic indexes and full text databases. Each library provides equipment for viewing media and computers for accessing specialized electronic databases and internet resources. Each campus library provides research and bibliographic assistance, library instruction, internet instruction, tours, interlibrary loan and reserves.

CAL is a computerized database of library holdings in all CPCC locations. This database can be accessed on any CPCC campus or from home through the library homepage. Material housed on one campus and needed at another campus is available within 24 hours via FAX or through campus courier service. Registered students, faculty and staff may check out materials from any campus library and may return books at any campus library.

Central Campus Library

Location: Learning Resources Center
Telephone: (704) 330-6885
Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
Friday, 7:30 a.m. - 4:30 p.m.;
Saturday 10:00 a.m. - 2:00 p.m.

Library Webpage

A comprehensive description of the library, its resources and services can be found on the library's homepage **(http://www.cpcc.cc.nc.us/library/home.htm.)**

Central Campus History

Central Piedmont Community College's history centers not so much on bricks and mortar, books and tapes, or research and development. The history centers more on the many people who have played a role in developing the College. A host of unsung heroes — from secretaries to counselors to faculty to administrators — have dedicated themselves to building the great institution that is CPCC.

Since its beginning, the College has been a national pacesetter in education. Standouts on the CPCC roster include a Pulitzer Prize winner, a Metropolitan Opera star, an Olympic gold medalist, a Congressional Medal of Honor winner, a television actress, and a pro football player. Countless others—chefs, health care providers, technicians, real estate brokers, paralegals, firefighters, law enforcement officers, trades people, and others who serve our community — share CPCC's proud tradition.

CPCC has been providing educational opportunities since 1963, the year that the North Carolina General Assembly passed the community college bill. Opening as a fully integrated institution, under the direction of Dr. Richard H. Hagemeyer, the founding president, the College combined the programs of Central Industrial Education Center (CIEC) on Elizabeth Avenue and Mecklenburg College on Beatties Ford Road.

The College sold its property on Beatties Ford Road and developed a campus around the old Central High School complex. Starting with 3.94 acres, the College bought surrounding property, demolished buildings, and closed streets to build the beautiful, tree shaded, 31-acre Central Campus that students and faculty now enjoy.

From the start, the College was different in its teaching methods. CPCC soon garnered national recognition for its individualized instruction and computer-assisted instruction. In 1970, the College was invited to join the prestigious League for Innovation in the Community College, and today it is still an active member. In 1985, CPCC was named one of the nation's top five community colleges in teaching excellence.

CPCC has grown from a small College with a dozen programs serving 1,600 students to one with over 100 degree, diploma, and certificate programs serving approximately 60,000 students in an array of credit and non-credit offerings. The College has also become the county's premier workforce development resource, offering its educational services through area learning centers, a Corporate Training Center, and at many high schools and businesses.

After Dr. Hagemeyer's retirement in 1986, Dr. Ruth Shaw became the College's second president. Under her leadership, the College added the Advanced Technologies Center and the Center for Automotive Technology and began acquiring land for multi-campuses.

Dr. Tony Zeiss, CPCC's third president, has led the College since December 1992. He is devoted to the mission of CPCC and to serving students and the community through customized training and workforce development. Under his direction, CPCC became a multi-campus community college in 1996 with the conversion of the North Area Learning Center in Huntersville to the North Campus. Three other campuses subsequently opened -- the new South Campus in 1998, the new Southwest Campus in 1999, and the new West Campus in 2001. A number of services are also available through City View (learning center). With the projected opening of the Northeast Campus in 2002, CPCC will have full-service campuses across Mecklenburg County. The College also reaches thousands of students via distance learning, offered through its "College Without Walls."

The College is currently embarking on more capital improvements and expansion to serve the growing region, and the Central Campus is slated for major renovations. As always, the College is growing because the citizens of Mecklenburg County know their investment in CPCC is changing their lives for the better.

Dean

The Dean of the Central Campus is Janet Chernega. Her office is located in the Terrell Building, Rm. 515.


CITY VIEW CENTER
Alleghany St.
Ashley Rd.
Cityview Center
Parking
Tuckaseegee
Exit 34B
To Uptown Charlotte
Freedom Dr.
Freedom Mall
27
N
85
Ashley Rd.
Alleghany St.
77
85
Area of detail
To Billy Graham Pkwy.
Alleghany St.
1609 Alleghany St., Charlotte - 704/330-5901


CPCC
CENTRAL PIEDMONT COMMUNITY COLLEGE
City View Center

City View Center

High Schools close to Campus:

Harding University high school, Technical high school, and Learning Academy-West.

Also, we are relatively close to West Mecklenburg high school, West Charlotte high school and Northwest School of the Arts.

Major Programs/Courses Offered

Allied Health Courses
Computer Courses
Dietary Managers Certificate
Early Childhood Accreditation
Limited English Proficiency (LEP) classes
Real Estate Courses
Classes for Senior Adults
GED Classes Upward Bound
Talent Search
Upward Bound

Services

At the City View Center location students can submit CPCC admissions forms, receive help with web registration for classes, take admissions tests, and buy books. The City View Center location offers free parking, security, vending, copy machine, telecourse library, public transportation and an open computer lab for registered students.

Facilities

The City View Center is a 10,000 sq. ft. building with five classrooms, computer classroom and an open lab.

Bookstore

City View Center

The Bookstore operation at City View Center is located in room 107. Textbooks, both new and used, are available for all classes taught at the City View Center, as well as student supplies.

The City View Center Bookstore is open at the beginning of each semester and at other times during the semester as needed. For further information, please call (704) 330-6658.

City View Center History

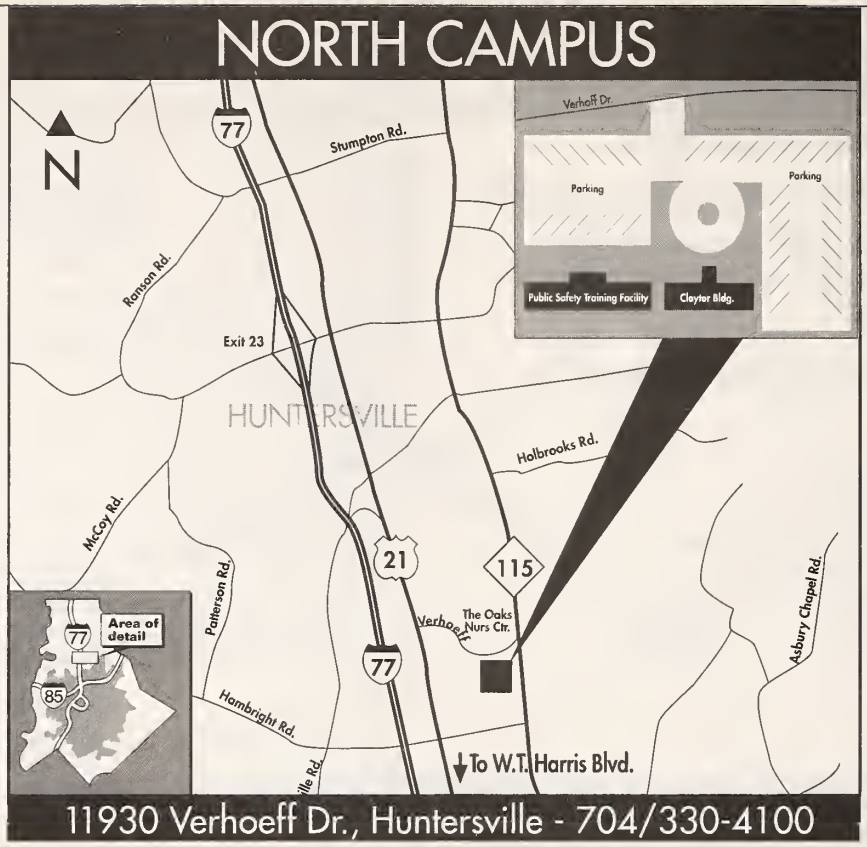
"The first of the learning centers, [the West Area Learning Center,] established in the spring 1979, was somewhat revolutionary. It occupied space in Freedom Mall Shopping Center on Charlotte's west side. Called the "College Mart," the center was equipped with the latest computers, office machines, and audio-visual aids and offered television courses, practical courses, and mini-courses on a wide range of subjects … CPCC saw the venture as a way to make education more accessible to the people, alleviate parking at the downtown site, and enable students to save money on gas. To promote the concept, it published a bright orange brochure with a shopping cart on the front panel and these words: "For the Best Value in Education Shop CPCC College Mart!" Mayor Ken Harris was the first student to register." *(Timblin, C., CPCC the First Thirty Years, p. 107)*

In 1990, the West Area Learning Center was relocated to the K-Mart Plaza on Freedom Drive where it remained until 1996 when it moved to Alleghany Street at Ashley Road and renamed the City View Center.

Over the years, the City View Center has evolved into a center for life-long learning which provides accessible, high-quality educational opportunities in a caring and supportive atmosphere.

Dean

The Dean of the City View Center is Lynn Given Lindsay, Ed.D.





Police training at North Campus.

North Campus

High School Center tied to North Campus

North Mecklenburg High School and Hopewell High School (opening this Fall, 2001)

Major Programs/Courses Offered

The North Campus offers the following programs/courses:

Public Safety Programs
Criminal Justice Technology
Basic Law Enforcement Training
Fire Protection Technology
South Piedmont Regional Criminal Justice Training
In-Service Training - Law Enforcement
In-Service Training - Fire - Rescue - EMT
Forensics Institute (Future Program)
Corporate & Continuing Education Classes
General Education Classes
College Transfer Classes
Transport Systems Technologies
Automotive Systems Technology
Heavy Equipment and Transport Technology

Services

Admissions: Claytor - Room 107, *Advising/Counseling:* Center for Justice - Room 109 (Tuesdays), *Bookstore:* Claytor - Main Lobby, *Career Services:* Center for Justice - Room 109 *Cashiering*: Claytor Room 107, *Counseling:* Center for Justice - Room 109 (Tuesdays) Contact: Denise Cathey *Employment Security Commission:* Center for Justice - Room 109, Contact Ben Boyles (Wednesdays), *Evening and Weekend Offerings, Financial Aid:* Claytor - Room 107, *Fitness Room:* Center for Justice - Room 118, *Food* (Vending): Claytor Main Lobby, Center for Justice - Room 121, *Library* Center for Justice - Room 120, *Parking, Security, Student Life:* Center for Justice - Room 121-A– Contact: Tracy Moore *Testing:* Claytor - Room 103, *Transportation:* Village Rider, North Meck Connector, 77 Express
The Evening Director may be reached at: 704-330-4168
Education Support Services: 704-330-4104
Division Director-Public Safety: 704-330-4165
Director CCE - Law Enforcement: 704-330-4108
South Piedmont Regional Director: 704-330-4169

Facilities

Claytor Building: Single-story, 10,000 square foot building 8 Classrooms, 1 Computer lab, 1 Tutor/Testing Area, Bookstore Area, Registration Area, 4 Offices, Staff Lounge, Claudia Watkins Belk Center for Justice Building (the former Public Safety Building), Single-story, 35,000 Square foot building 8 Classrooms, 1 Computer lab, 1 Science Lab/classroom, 1 Forensics Lab/classroom, 1 Fitness Room, 1 Courtroom, Library, 11 Offices, Student & Staff Lounges, 200-seat Auditorium, 1 Conference Room

Bookstore

North Campus

The CPCC Bookstore at North Campus is located in the Claytor Building. Textbooks, both new and used, are available for all classes taught at the North Campus, as well as student supplies.

The North Campus Bookstore is open at the beginning of each semester and at other times during the semester as needed. For further information, please call (704) 330-4101.

The bookstores web page may be accessed from the college's web page or by **http://bookstore.cpcc.cc.nc.us.** Books can now be ordered on the web.

Library Services

North Campus Library

Location: Center for Justice Building, Room 120
Telephone: (704) 330-4103
Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
Friday, 7:30 a.m. - 11:30 a.m.

Library Webpage

A comprehensive description of the library, its resources and services can be found on the library's homepage (**http://www.cpcc.cc.nc.us/library/home.htm.**)

North Campus History

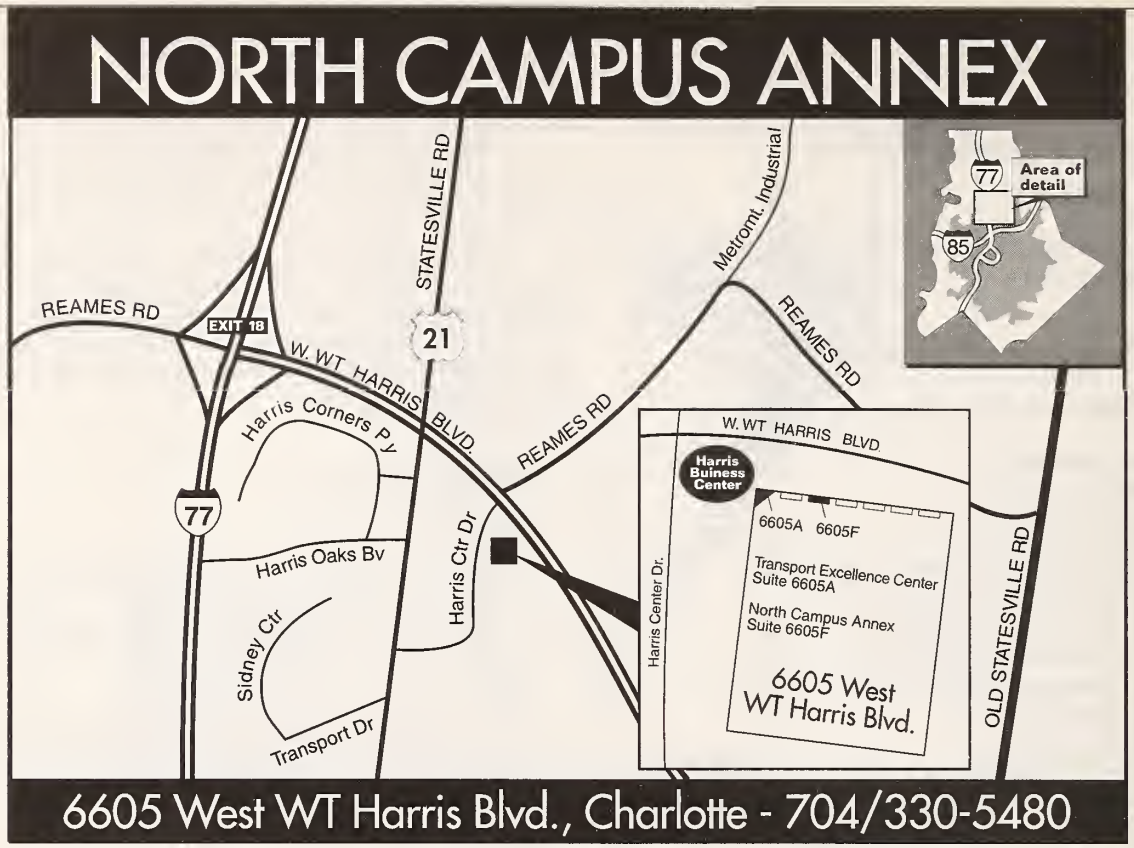
The North Campus was the first of CPCC's multi-campuses. The main office number is 704-330-4101.

The Claytor Building (named for the former CPCC Chairman of the Board of Trustees, Bill Claytor) was dedicated in October of 1990 as the North Center. The North Center became the North Campus with the addition of the Public Safety Building six years later.

The Public Safety building, funded with local bond money, is the result of a collaborative effort that included area law enforcement professionals, community college leaders and relevant public groups. Groundbreaking ceremonies were held in October, 1995 and the Public Safety Building was occupied in December, 1996. On November 3, 2000, this building became the Claudia Watkins Belk Center for Justice, named after one of Charlotte's most prestigious and prominent citizens.

Dean

The Dean of the North Campus is Beverly Dickson.
The Dean's office can be reached by calling: 704-330-4119


NORTH CAMPUS ANNEX
STATESVILLE RD
Metromt. Industrial
Area of detail
77
85
REAMES RD
EXIT 18
21
W. WT HARRIS BLVD.
REAMES RD
REAMES RD
Harris Corners Pky
77
Harris Oaks Bv
Harris Ctr Dr
Sidney Ctr
Transport Dr
W. WT HARRIS BLVD.
Harris Buiness Center
6605A 6605F
Transport Excellence Center Suite 6605A
North Campus Annex Suite 6605F
6605 West WT Harris Blvd.
Harris Center Dr.
OLD STATESVILLE RD
6605 West WT Harris Blvd., Charlotte - 704/330-5480



North Campus Annex

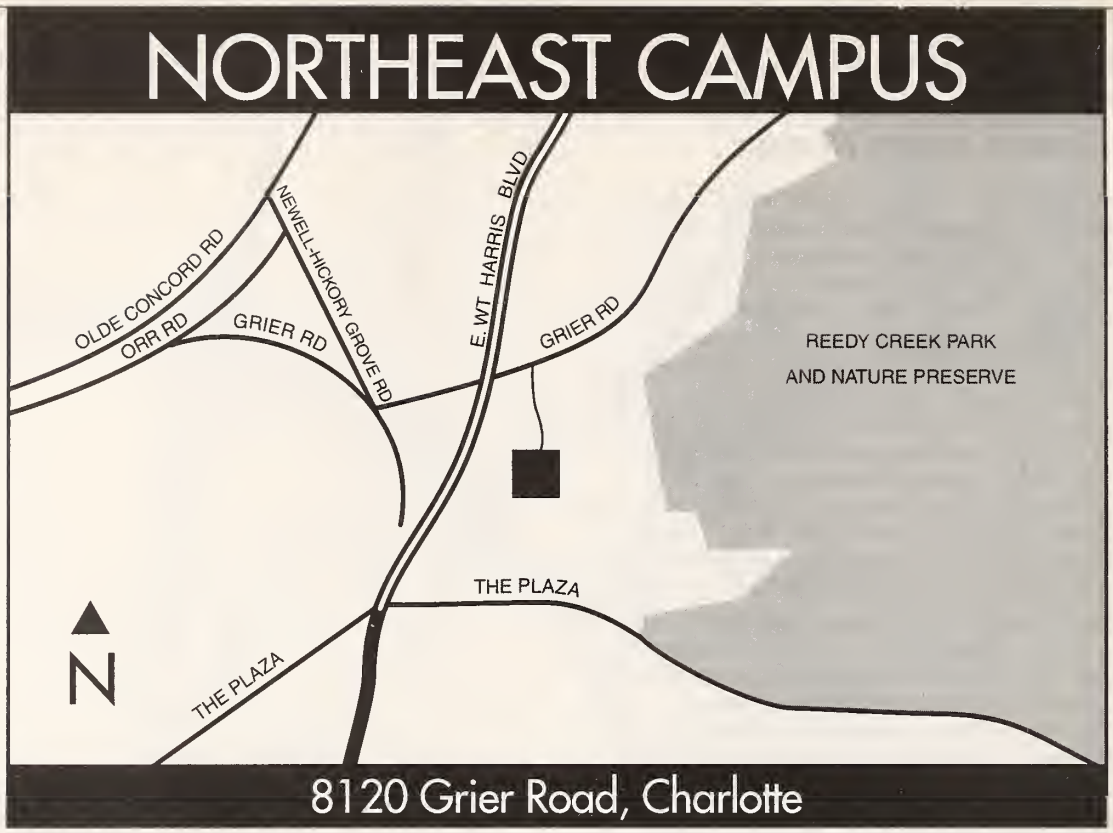
North Campus Annex History

The Transport Excellence Center at the North Campus Annex is the site for Central Piedmont Community College's Heavy Equipment and Transport Technology Program, General Motors Training Center, North Carolina Safety and Emission Inspection Training, a variety of other transportation technology related course instruction, and office space for Corporate and Continuing Education. This 21,000 square feet facility is divided into two suites, suite A and suite F in the Harris Business Center at 6605 West Harris Boulevard. The TEC has two computer labs, offices, classrooms, a conference room, breakroom, and several transport technology labs.

The Heavy Equipment and Transport Technology Program has large corporate partnerships with Eaton, Meritor, Thermo King, and Freightliner. All four companies conduct training in the Transport Excellence Center. The Charlotte Maintenance Council, a heavy equipment and diesel company professional organization, conducts some of their meetings in the North Campus Annex. It is a convenient location because a majority of heavy equipment businesses are located in that area.

The General Motors Training Center at the North Annex is one of two satellites for the Atlanta General Motors Training Center. Technicians from North and South Carolina, West Virginia, and Virginia attend training center at this center. The Transport Excellence center is located near several hotels and restaurants that provide a variety of options for overnight trainees.

Central Piedmont Community College trains over 1,000 automotive technicians how to conduct safety and emission inspections per year at the North Campus Annex. This is soon to increase because many surrounding counties are adding the emissions portion to their testing requirements. Other transportation-related instruction in the Transport Excellence Center at the North Campus Annex includes AC Delco training, forklift operation training, OSHA warehouse safety training, automotive computer application training, as well as Toyota sales and technician training.



Architectural rendering of Northeast Campus, scheduled to open Spring semester 2002.



Northeast Campus

High School Center Close to Campus

Vance Zebulon B. High School offers CPCC classes on Tuesday and Thursday evenings from 6:00 p.m. – 9:30 p.m. Offerings include physical education, personal interest, basic computer training, Language Institute, business and management.

Major Programs/Courses Offered

The Northeast Campus offers four A.A.S. programs:

Office Systems Technology
Horticulture Technology
Paralegal Technology
Interpreter Education

Certificates are also available in each of these programs:

Office Systems Technology
Horticulture Technology
Paralegal Technology
Interpreter Education
Turfgrass Management

Other offerings include all general education courses which lead to an A.A.S. degree which can be transferred to a 4-year college or university.

Services

Admissions, registration, student records: located in the main lobby, first floor, room 113; Advising/Counseling: located in room 110; Bookstore: located in room 132, textbooks, both new and used, are available for all classes offered at the Northeast campus as well as student supplies. Career Services: room 126; Cashiering: main lobby, room 150. Other services include: Evening and Weekend offerings, Financial aid services assistance; Student Life offices and activities are located in room 126; Placement Testing is available in room 111. City Transit public buses run right by the Campus.Food: snacks, candy and beverage machines are located on each on each floor for student use. Refund guidelines are posted on each machine.

The Northeast Campus Library is located in room 200.

The Northeast Campus is a well-paved and lighted area. Students may use all parking lots. Security office is located in room 105.

Services are available for student with disAbilities. Sponsored students must submit a letter of authorization to bill and their registration information to the Business Office. Please visit our website: www.cpcc.cc.nc.us/Business_Northeast_Campus or call the Business Office at (704) 330-4262.

Facilities

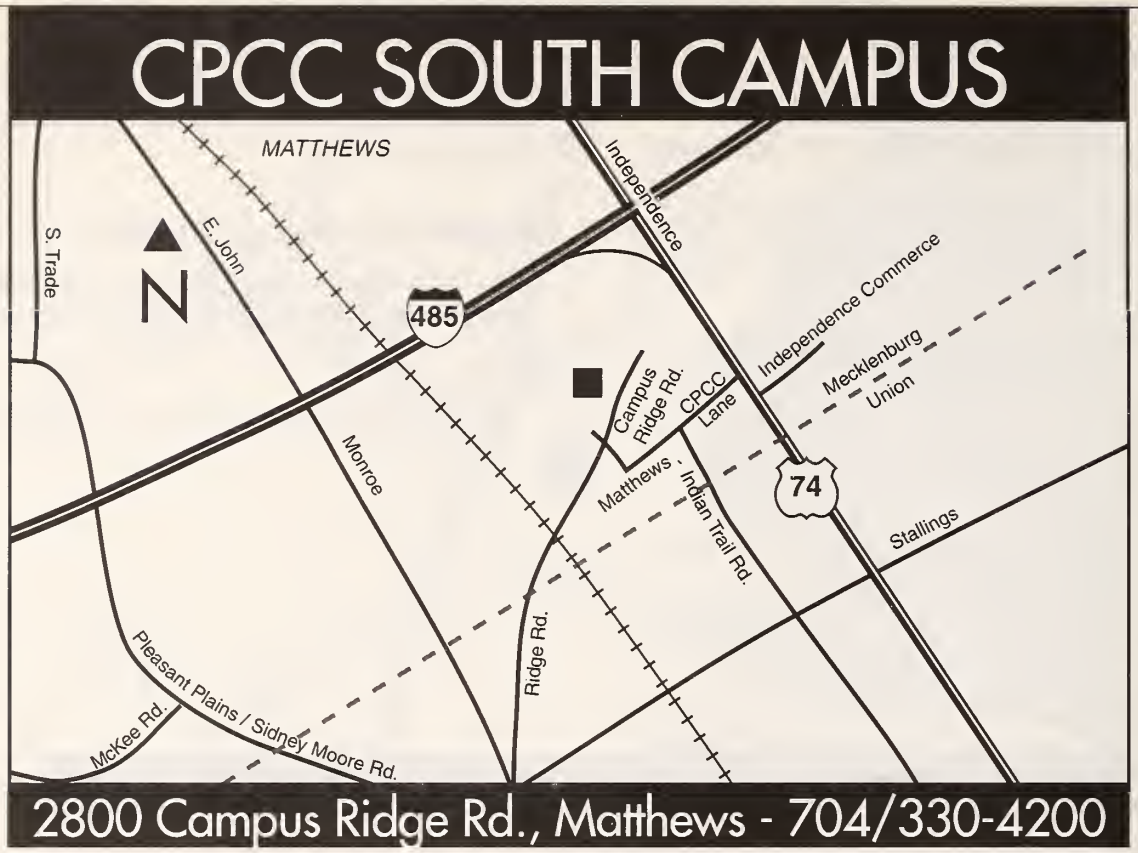
The Northeast Campus is located on a wooded 34 acre lot. The main building is 45,000 square feet with a 5,000 square foot Horticulture Building.

Northeast Campus History

As CPCC's newest campus, Northeast is scheduled to open Spring semester, 2002 with full offerings by Fall semester, 2002.

Dean

The Dean of the Northeast Campus is Dr. Cindy Johnston.


CPCC SOUTH CAMPUS
MATTHEWS
S. Trade
E. John
N
485
Independence
Independence Commerce
Mecklenburg Union
Campus Ridge Rd.
CPCC Lane
Monroe
Matthews - Indian Trail Rd.
74
Stallings
Ridge Rd.
Pleasant Plains / Sidney Moore Rd.
McKee Rd.
2800 Campus Ridge Rd., Matthews - 704/330-4200



South Campus

High Schools close to the Campus

The high schools areas close to the South Campus are Butler, Independence, Providence, and East Mecklenburg.

Major Programs/Courses Offered

The classes offered are about one-half curriculum and about one-half Continuing Education. The majority of curriculum courses are for students seeking a transfer to a four-year college and for students seeking a two-year degree in Business Administration. The Continuing Education courses are a wide array of classes that seek to meet the needs of those not intending to transfer to other colleges. These classes vary in length, start/end dates, and subject. They are designed to meet the needs of the community at large, ranging from mandatory licensure updates to personal interest/leisure classes.

Services

As a full-service campus, the South Campus has all the services one would expect at a large community college.

Educational Support Services is directly responsible for: Admissions, Advising/Counseling, Career Services, Library Services, Security Services, Parking Services, Services for students with disAbilities, Student Life and Placement/Course Testing.

Administrative Services is directly responsible for: Bookstore, Business Office/Cashiering, Sponsored Students, Housekeeping, Maintenance Services and Ground Maintenance.

The Evening Director is directly responsible for: Evening and weekend offerings.

Facilities

Located beside a small lake, the South Campus is a 115,00 square foot mall-type structure with 1200 adjacent parking spaces. It has over 40 classrooms with capacities from 20 to 90 seats. About 25 percent are computer instruction classrooms.

Bookstores

South Campus

The CPCC Bookstore at South Campus is located on the second floor. Textbooks, both new and used, are available for all classes taught at the South Campus, as well as student supplies.

The South Campus Bookstore is open Monday - Thursday, 9:00 a.m. - 6:30 p.m. and Friday, 9:00 a.m. - 2:00 p.m. Hours during summer term and when class is not in session are subject to change. For further information, please call (704) 330-4233.

Library Services

Each campus library has a collection of print and non-print materials particularly suited to the objectives and programs of that location. Library resources include: the general book collection, reference books, bound and unbound periodicals, microforms, media, electronic indexes and full text databases. Each library provides equipment for viewing media and computers for accessing specialized electronic databases and internet resources. Each campus library provides research and bibliographic assistance, library instruction, internet instruction, tours, inter-library loan and reserves.

CAL is a computerized database of library holdings in all CPCC locations. This database can be accessed on any CPCC campus or from home through the library homepage. Material housed on one campus and needed at another campus is available within 24 hours via FAX or through campus courier service. Registered students, faculty and staff may check out materials from any campus library and may return books at any campus library.

South Campus Library

Location: Room 3103
Telephone: (704) 330-4212
Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
Friday, 7:30 a.m. - 4:30 p.m.;
Saturday, 10:00 a.m. - 2:00 p.m.

Library Webpage

A comprehensive description of the library, its resources and services can be found on the library's homepage **(http://www.cpcc.cc.nc.us/library/home.htm.)**

South Campus History

The South Campus of CPCC opened for classes in the Fall of 1998. It was the second full-service campus to open away from the Central Campus. It is a 115,000 square foot mall type design, with all services under the same roof. Serving over 7,000 students, the current facility is near maximum capacity with classes running seven days per week. Plans for a second phase, which will double the size, are underway with a proposed opening date of Fall 2003.

Dean

The Interim Dean of the South Campus, Business, International and General Studies Programs is Clint McElroy.

CPCC SOUTHWEST CAMPUS



315 W. Hebron Street, Charlotte - 704/330-4400



Southwest Campus

High School Close to the Campus

The high schools areas close to the Southwest Campus are South Mecklenburg, West Mecklenburg, Olympic, New Southwest and the Technical high school.

Major Programs/Courses Offered

Advertising and Graphic Design
Air Conditioning
Heating and Refrigeration Technology
Construction Training
Graphic Arts and Imaging Technology
Electricity/Electronics Technology
Welding Technology

Services

Services include: admissions, advising/counseling: Mondays and Thrusdays or by appointment, placement testing, career services, cashiering, evenings and weekend classes, financial aid by appointment, vending machines, parking, security, services for students with disAbilities, sponsored students and student life.

Transportation: Charlotte Transit System – Route 41X

Facilities

State of the art comprehensive aplied technologies campus; 12 classrooms, 75 seat auditorium, library, open computer labs, bookstore, library and student life center.

Bookstore

Southwest Campus

The CPCC Bookstore at Southwest Campus is located on the second floor, near the registration area. Textbooks, both new and used, are available for all classes taught at the Southwest Campus, as well as student supplies.

The Southwest Campus Bookstore is open at the beginning of each semester and at other times during the semester as needed. For further information, please call (704) 330-6649.

Library Services

Each campus library has a collection of print and non-print materials particularly suited to the objectives and programs of that location. Library resources include: the general book collection, reference books, bound and unbound periodicals, microforms, media, electronic indexes and full text databases. Each library provides equipment for viewing media and computers for accessing specialized electronic databases and internet resources. Each campus library provides research and bibliographic assistance, library instruction, internet instruction, tours, inter-library loan and reserves.

CAL is a computerized database of library holdings in all CPCC locations. This database can be accessed on any CPCC campus or from home through the library homepage. Material housed on one campus and needed at another campus is available within 24 hours via FAX or through campus courier service. Registered students, faculty and staff may check out materials from any campus library and may return books at any campus library.

Southwest Campus Library

Location: Room 207
Telephone: (704) 330-4418
Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
Friday, 7:30 a.m. - 11:30 a.m.

Library Webpage

A comprehensive description of the library, its resources and services can be found on the library's homepage **(http://www.cpcc.cc.nc.us/library/home.htm.)**

Southwest Campus History

The Southwest Campus opened August, 1999. The campus was built to meet the needs for applied technologies training requested by business and industry of Charlotte-Mecklenburg. In addition, the campus also provides space for a variety of corporate and continuing education offerings.

Dean

The Dean of the Southwest Campus is Gary Nelson.


CPCC WEST CAMPUS
74
LITTLE ROCK RD
AIRPORT PKWY
Old Dowd Rd
BILLY GRAHAM PKWY
WILKINSON BLVD
521
WILKINSON BLVD
CHARLOTTE-DOUGLAS INTERNATIONAL AIRPORT
Morris Field Dr
Capitol Dr
CPCC West Campus Dr
BILLY GRAHAM PKWY
OLD STEELE CREEK
WEST BLVD
77
85
Area of detail
3210 CPCC West Campus Dr., Charlotte - 704/330-4600



West Campus

High Schools Close to the Campus

The high schools areas close to the campus are: Harding high school, West Mecklenburg and West Charlotte high schools.

Major Programs/Courses Offered

Dental Assisting
Travel and Tourism
Culinary Arts
Computer Training
Management/Leadership Develpoment
Customer Service
Communication Skills Training
Real Estate/Insurance/Banking
Small Business
Personal Interest
Fire Protection Technology
ABLE

Services

Services include: day/evening/weekend classes, free parking.

Facilities

West Campus is a state of the art facility with 22 classrooms including computer classrooms.

Bookstore

West Campus

The CPCC Bookstore at West Campus is located on the main level in Room 1231. Textbooks, both new and used, are available for all classes taught at West Campus, as well as student supplies.

The West Campus Bookstore is open at the beginning of each semester and at other times during the semester as needed. For futher information, please call (704) 330-4633.

Food

Sandwiches, snacks, candy and beverage vending machines are placed in two different locations at West Campus.

Library Services

West Campus Library

Location: Room 2100
Telephone: (704) 330-4618
Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
Friday, 7:30 a.m. - 11:30 a.m.

Library Webpage

A comprehensive description of the library, its resources and services can be found on the library's homepage **(http://www.cpcc.cc.nc.us/library/home.htm.)**

West Campus History

West Campus is CPCC's newest full-service campus, located on the corner of Billy Graham Parkway and Morris Field Drive.

The West Campus will provide education and training to students and business clients. West Campus is a state-of-the-art facility.

Phases I and II is approximately 65,000 square feet. Phase III – The Corporate Training/Conference Center is in the planning stage; projected opening 2004.

Dean

The Dean of the West Campus is Paul Koehnke.

College Without Walls

Location

The services of the College Without Walls are virtually everywhere, accessible through its website at HYPERLINK "http://cww.cpcc.cc.nc.us" http://cww.cpcc.cc.nc.us and the CPCC Home Page HYPERLINK "http://www.cpcc.cc.nc.us" http://www.cpcc.cc.nc.us. However, the CWW offices are located on the lower level of the Learning Resources Center on the Central Campus (LR038).

Major Programs/Courses Offered

The majority of college-transfer requirements and many electives are available at a distance and new courses are brought online each term. Check the online class schedule for specific distance courses at HYPERLINK "http://mycollege.cpcc.cc.nc.us/classsched/welcome.asp" http://mycollege.cpcc.cc.nc.us/classsched/welcome.asp. Select CWW as the department; then select the prefix for your desired course. Section numbers 80 and 81 denote telecourses; section numbers 82 – 89 denote online or combination teleweb courses.

Services

Admissions and Registration HYPERLINK "http://www.cpcc.cc.nc.us/admissions" http://www.cpcc.cc.nc.us/admissions/Registration/default.htm

Advising/Counseling: HYPERLINK "http://www.cpcc.cc.nc.us/ican" http://www.cpcc.cc.nc.us/ican

Bookstore: HYPERLINK "http://bookstore.cpcc.cc.nc.us/wm_home.htm" http://bookstore.cpcc.cc.nc.us/wm_home.htm

Career Services: http://www.cpcc.cc.nc.us/career_center/

Cashiering: (704) 330-6697 or e-mail Linda_Anderson@cpcc.cc.nc.us

Evening and Weekend Offerings: (704) 330-5925

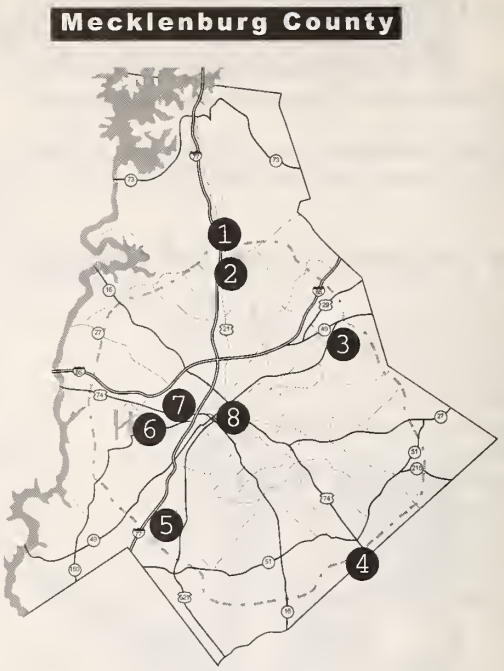
College Without Walls Virtual Campus History

Created in 1997 in response to the growing demand for online as well as televised educational opportunities, the CWW now offers more than 80 curriculum courses at a distance to more than 1800 students each term.

General Information number to call: (704) 330-5092 or cww@cpcc.cc.nc.us

Dean

Dr. Rod Townley, Dean, Instructional Development and Information Technology.



1 **North Campus**
at Huntersville
11930 Verhoeff Drive

2 **North Campus Annex**
6605 W. WT Harris Blvd.

FUTURE SITE
3 **Northeast Campus**
Harris Boulevard and Grier Road

4 **South Campus**
2800 Campus Ridge Road
near Independence and 485

5 **Southwest Campus**
315 Hebron at Nations Ford Road

FUTURE SITE
6 **West Campus**
Morris Field Drive and
Billy Graham Parkway

7 **City View Center**
1609 Alleghany Street
at Ashley Road

8 **Central Campus**
1201 Elizabeth Avenue at
Kings Drive

9 **College Without Walls**
(virtual campus)
http://cww.cpcc.cc.nc.us

Programs & Services



Programs and Services

College Without Walls (CWW)

The College Without Walls (CWW) coordinates all distance learning at Central Piedmont Community College. The courses offered through CWW include video-based telecourses, web-based courses delivered over the Internet hybrid Teleweb courses, and live courses delivered over the North Carolina Information Highway. These courses are taught by CPCC instructors and adhere to the same standards as courses taught in the classroom. The distance courses and programs are designed for students who need flexibility in their pursuit of educational goals.

CWW provides training for faculty who wish to develop and/or teach distance courses. It also provides orientations for students and faculty involved in both video-based and web-based learning.

For more information, call the Distance Learning Support Center at (704) 330-5092, email to cww@cpcc.cc.nc.us, or visit the CWW website at http://cww.cpcc.cc.nc.us.

Compensatory Education Program

The Compensatory Education Program provides adult education classes for persons who have special learning needs, due to a developmental disability or traumatic brain injury. Classes are offered on the Central Campus as well as at community agencies that provide job training and employment. Classes are small and structured to meet the individual needs of each student. There is no charge, and books and materials are provided.

The primary emphasis is on the basic life skills needed for successful employment and independent living. The curriculum covers a broad range of subjects, including reading, writing, math, health, consumer education, social studies, job seeking and other work related skills. Throughout the program, there is a strong emphasis on the practical application of these subjects to the challenges of daily life.

To be eligible for these classes, students must be 18 years old, no longer attending public school, and able to provide evidence of a developmental disability or brain injury. For more information and a current schedule of classes, please call (704) 330-6033 or visit the CED web site at http://www.cpcc.cc.nc.us/Compensatory_Education.

Cooperative Education Program

Cooperative Education is an academic program which integrates classroom studies with practical experience in business, industry, public and community agency work situations. The work experience constitutes a regular and essential element in the educational process by allowing students to apply their studies in a real work environment.

The Co-Op work experience is concurrent or alternating with academic studies, may be paid or unpaid, and awards students academic credit. For many CPCC students, Co-Op provides an extra means of financial support.

• **Eligibility**

Students are accepted from various programs of study at CPCC, provided they meet the following general criteria:

1. Be enrolled in an approved CPCC Co-Op curriculum or degree;
2. Have a minimum 2.5 GPA (may be lower, depending on division);
3. Have successfully completed specific courses pre-selected by faculty;
4. Be recommended by the Co-Op faculty coordinator; and
5. Be approved by the Cooperative Education office.

Note: Enrollment in the Co-Op Program does not guarantee placement for every student.

• **Present Position - Co-Op In Place**

Students can qualify to receive academic credit if they are already employed and they meet the following general criteria:

1. Students must be acquiring significant new skills or knowledge related to their academic fields of study; and/or
2. Students must be developing recently learned skills or applying recently learned knowledge related to their academic fields of study; and/or
3. Students must be receiving increased levels of responsibility related to their academic fields of study; and/or
4. Employers must agree to assist with evaluations of their individual student's progress.

For more information on how to participate as a Co-Op student or a Co-Op employer, contact the Work-based Learning/Cooperative Education Office, Kratt Hall 121, (704) 330-6217.

Integrated Counseling and Advisement Network (ICAN)

To foster total student development, CPCC operates within the framework of an integrated counseling and advisement system, which includes counselors, academic advisors, faculty advisors, staff, and peer advisors. Assistance is provided in the areas of academic, personal, and career counseling; program and college orientation; academic assessment and advising; and high school matriculation.

Academic advisors provide professional guidance services for students as they begin their career journey at the College. Assistance is provided that helps students with appropriate placement, course selection, and in understanding institutional policies and procedures.

The counseling function at the College is an integral part of the teaching and learning process. In that light, the **counseling staff** works very closely with faculty advisors in addressing all of the developmental needs of students. These efforts include the Personal Counseling Assistance Program (P-CAP) which provides confidential and professional counseling assistance to students regarding personal issues that may be adversely affecting their progress. Students are seen by appointments, and the counseling staff makes appropriate medical or agency referrals when additional help is needed. Call (704) 330-5013 or (704) 330-6954/6433 to schedule a P-CAP appointment.

Realizing that advising plays an essential part in student persistence and success, **faculty** and **staff advisors** play a significant role in helping students maitain satisfactory progress in programs of study. Assistance is provided in exploring alternatives, developing goals, and following specific educational plans for goal achievement.

Peer advisors assist in simplifying processes that students must complete while attending CPCC such as registration, scheduling of classes, and locating various offices and classrooms at the College. In addition, they assist students with various services in the Career Center.

Academic advising at CPCC is an integral part of the mission of the College — educating students for life. The college is committed to making our advisement system an effective, car-

ing, supportive and accessible service for all students. The advising process is designed to help students realize the educational benefits available to them, to help them to better understand themselves, and to learn to use various resources in attaining their career/life goals. The ICAN promotes student success by ***"Helping students, help themselves."***

Career Services

Career Services at CPCC exists to help our students and graduates develop and implement their career plans by educating and training them on career development issues and by establishing and maintaining mutually beneficial relationships with the employment community.

Our comprehensive career development program offers:

- Individual counseling on choosing and preparing for a career,
- Updates and detailed information on our website: www.cpcc.cc.nc.us/career_services
- Assistance in finding a job through an on-line posting service,
- Presentations on job search preparation and interview techniques,
- Individual assistance with writing resumes,
- Contact with employers through on-campus recruiting, career fairs and career panels,
- Special career development events.

Exploring Careers

Several options are available for exploring careers.

- *Individual career counseling* including in-depth assessments, is available for currently enrolled students who are undecided or need help clarifying career plans. This personalized program helps students discover their unique talents/interests and how they relate to their career goals.
- *Career panels* bring local employers on campus to talk directly with students about job outlook, hiring trends, required skills, etc.
- *Career development classes* are available throughout the year (ACA 120).
- *Computerized career interest/abilities software programs* (DISCOVER and Choices CT) help students independently explore career options. These programs are available to students and the community at no charge.
- *Career Counseling is available for those not currently enrolled at CPCC.* This low cost, short-term program focuses on individual assessments and how they relate to possible retraining and career goals.

Finding Employment

Students and alumni have several resources to assist them with career opportunities:

- *On-line Job Database*
  Area employers now list their job openings directly on CPCC's Career Services on-line job database site. Students and alumni can view current openings from anywhere they have Internet access. Contact us for more information.
- *Resumé Referral*
  Graduates' resumés are forwarded to employers for full time professional openings.
- *Career Services Partners*
  Representatives from the following agencies/companies assist students and individuals from the community with their job search needs.

  Employment Security Commission representatives are on our multi-campuses. *Adecco* Staffing Agency and UPS are located on the Central Campus in Garinger 121.

Accessing Career Services

Career Services are available at the following campuses. To talk with a staff member please call or visit:

Central Campus	(704) 330-6551	Garinger 122
South Campus	(704) 330-4247	Room 2117
Southwest Campus	(704) 330-4422	Room 403
North Campus	(704) 330-4105	Room CJ 109

The Career Center (Central Campus, Garinger 122) is open Monday – Thursday 8:00 a.m. – 6:00 p.m. and Friday until 5:00 p.m.

For more information on our services and the hours for other campuses, please visit, call or access our website: www.cpcc.cc.nc.us/career_services.

Distance Learning Services

The Distance Learning Services Department is a component of CPCC's Instructional Development Center and provides media support for the college. Its most visible element is CPCC-TV, a 24-hour-a-day, seven-day-a-week television station available in the college service area via Time Warner and Adelphia Cable.

Supporting the College Without Walls, the station programs a wide variety of telecourses — full college credit courses via TV, which may be viewed on schedule or taped for viewing at the student's convenience. This non-traditional delivery system attempts to meet the needs of students who find it difficult to attend classes on campus.

CPCC-TV also supports college community service goals with current information about the college, non-credit educational programs, international programming, programs supporting community needs, and programs on the arts. The station's program schedule is published in the *Charlotte Observer* and on the electronic viewing guides found on *Time Warner and Adelphia Cable Systems*.

The department is CPCC's access to the North Carolina Information Highway (NCIH), a full motion two-way audio-video link to other colleges, universities, and agencies. Credit and non-credit courses are scheduled in the NCIH classroom each term, the sharing of which provides statewide educational opportunities that might not be available in the traditional classroom setting.

Distance Learning Services provides further support to faculty members, staff, students, and the community with satellite teleconferences, NCIH video conferences, video production and post-production facilities, video duplication facilities, and a full service photography/imaging center.

For more information on Distance Learning Services, call (704) 330-6703 or e-mail the department at tv@cpcc.cc.nc.us.

First Aid Team

CPCC has a first aid presence on campuses. Security makes up the team for Central, South, Southwest, and West. Campus Security officers are certified in American Red Cross First Aid — Responding to Emergencies and American Heart Association Cardiopulmonary Resuscitation and Emerency Cardiac Care. Security members are on duty between 7:00 a.m. – 11:00 p.m.

To report medical emergencies from any campus, call (704) 330-6911.

High School Students at CPCC

Several programs at CPCC encourage Charlotte area high school students to remain in school and enable them to take courses at CPCC:

- ***The College Experience Program*** provides Charlotte-Mecklenburg School System high school seniors a head start on a college education, advanced vocational preparation, and personal enrichment opportunities. Approved CPCC courses may be taken by students during their senior year as a part of the school day. Courses are taken on the Central Campus North, South, Southwest and West Campuses, as well as on site (at the high school in some cases) and may give both high school and college credit. College Experience students are regarded by CPCC as any other college students and receive identical treatment. Grade reports are mailed to students and to the high school following the close of each semester. Copies of students' transcripts are available through the office of Student Records. For additional information, call (704) 330-4435.

- ***The Concurrent Enrollment Program*** enables qualified students, who are at least 16 years old and who are enrolled in Charlotte area high schools, to take courses at CPCC for personal enrichment or high school or college credit. High school credit for courses taken through Concurrent Enrollment must be approved specifically by the high school principal. Concurrent Enrollment forms may be obtained at high schools, any of CPCC's campuses, downloaded from the Cooperative High School Program website or by request from the Concurrent Enrollment Counselor's office on the Central Campus. Students enrolling in this program must present the signed and approved Concurrent Enrollment form at the time of registration at CPCC. Concurrent Enrollment students are regarded by CPCC as any other college student and receive identical treatment. Grade reports are mailed directly to students following the close of each semester. Copies of students' transcripts are available through the Office of Student Records. For Concurrent Enrollment Forms or additional information, call (704) 330-4435.

- ***Pre-College Services*** works with high school dropouts, possible dropouts, and others in need of specialized additional educational programs. Pre-College Services coordinates the functions of Dropout Intervention, Concurrent Enrollment, the GED Testing Center, and Service members Opportunity Colleges (SOC); provides entry processes and mechanisms; and coordinates dropout prevention between the College and public schools in compliance with North Carolina Senate Bill 184. For more information, call (704) 330-4435.

- ***The College Tech-Prep Program*** is offered in conjunction with Charlotte Mecklenburg Schools. Students who are enrolled in the program during high school should have already selected a career cluster in high school and degree program at CPCC. Some of the courses taken during high school actually allow for advanced placement in CPCC programs. Please refer to your career path guidelines, check with your high school counselor or the appropriate department head at CPCC. For more information, call 330-4435.

The CPCC Honors Program

The Central Piedmont Community College Honors Program is aimed at providing an appropriate level of educational experience for students who thrive on a greater intellectual challenge and who wish to distinguish themselves academically and professionally. The program was conceived with the idea that academically superior students want this greater challenge to their intellectual abilities and are intrigued with the chance to stretch their minds as far as possible. Thus, the Honors Program offers great opportunities for intellectual stimulation. The program activities include small classes composed of students with similar interests and motivation, internships, and mentorships with instructors and community leaders in various fields of study. There are also opportunities for international travel, study, and work. These students can be graduated, if they meet certain qualifications, "With Honors."

The program is designed as an enhancement and enrichment to a students chosen curriculum and is open to all students who qualify. It is composed of three segments:

(a) special Honors sections of general courses such as English 111 and 113, Business 110, Biology 111;

(b) student-initiated Honors contracts written between individual instructors and students allowing those students to work on the "honors" level in a non-honors designated section; and,

(c) a series of specially designed and taught interdisciplinary "Honors Seminars" limited to Honors students only. These seminars linking the humanities and the technologies will feature guest speakers, visits to sites off-campus, and actual involvement with leaders in various technological, business, and arts areas in the Metrolina area.

Students interested in the CPCC Honors Program or who have questions about the program should contact Dr. Roy Colquitt, Director of the Honors Program, at the Honors Office, at (704) 330-5055.

Work-based Learning Program

There are many programs available to students that will provide the necessary experience and skill development in chosen career fields. The majority of employers today prefer applicants with career-related experience. Students may choose to work in one area or sample multiple interests; and students may choose to combine different types of experiences.

Career experience has additional benefits for students: they become more comfortable navigating the transition from school to work; gain the competitive edge over other job candidates; assist with college costs; identifies interests and skills; and enables students to build a career-oriented work record, thus increasing marketability and value to employers upon graduation.

Career experience can be gained through the following programs:

Cooperative Education
Adult Apprenticeships
Career Internships
Job Shadowing
International Opportunities
Community Service/Volunteer positions

For more information, call the Work-based Learning Office at (704) 330-6217.

Ruth G. Shaw Academic Learning Center

The Ruth G. Shaw Academic Learning Center is a comprehensive learning assistance laboratory providing help to students in academic areas. Services through the Learning Center include peer tutoring, writing assistance, math tutoring, basic reading instruction, computer assisted learning drills, word processing, Internet access, and learning skills diagnoses. Located on the first floor of Garinger, the Learning Center provides individualized instruction from trained staff members. Students receive help with a wide range of subjects including English, reading, science, and mathematics. By appointment or on a walk-in basis, the Academic Learning Center is open Monday-Thursday from 8:00 a.m. - 8:00 p.m. and on Fridays from 8:00 a.m. - 2:00 p.m. Tutorial services are available at all CPCC campuses; however, tutoring schedules may vary from campus to campus.

For further information, contact the Academic Learning Center at (704) 330-6474.

Services for Students with disABILITIES

Services for Students with disABILITIES is a uniquely comprehensive and innovative program designed to meet the educational needs of students with disabilities. The department provides services to students with disabilities that include, but are not limited to, the blind, deaf, hard of hearing and to students with learning disabilities, physical disabilities, traumatic head injuries, developmental disabilities and many others. A comprehensive list of all disabilities accommodated can be obtained from the Services for Students with disABILITIES office.

• *Admissions and Campus Visit*

Students who request assistance through Services for Students with disABILITIES need to submit official documentation of their disability. Official documentation may be a psychological report, a vocational rehabilitation document, an insurance statement and/or medical records. Specific types of documentation of disability vary with the student's disability. Before students with disabilities make a final decision to enroll at CPCC, the College recommends that they visit the Central Campus to meet the specially-assigned counselor in Services for Students with disABILITIES office. At that time, the student may also investigate arrangements such as housing, other campus support services, mobility training, etc.

Using the "documentation of disability," admissions documents, career interests, inventories of non-academic skills, placement testing results, and student interview, the counselor develops a plan for the student's academic progress. This plan describes the student's eligibility and the nature of accommodations. The counselor and the student will plan specific goals and determine which accommodations are necessary. In order to receive appropriate services, the student must maintain contact with the counselor throughout the semester. Students are also encouraged to discuss their needs for accommodations with their instructors.

• *Counseling Services*

Counseling is an important component in overall student success. The Services for Students with disABILITIES counselors provide personal, social, vocational, and educational counseling. The counselors are the main referral point for assisting instructors in making accommodations for individual students.

• *Full-Time Status*

Based on the nature of the disability, a student may not be able to enroll for 12 hours of credit during fall and spring terms and for at least 9 hours of credit during the summer term as other students.

Full-time status for a student with a disability may be established based on, 1) the nature of the disability, 2) the nature and demands of the course, 3) the time the student requires to complete certain academic tasks, 4) the nature and the effects of medication to academic performance (if the student is taking medication), and 5) the stability of the disability.

• *Educational/Vocational Plan*

It is recommended that students interested in requesting accommodations meet with the counselor to discuss their educational/vocational goals. These goals would include: the support services needed by the students based on the specific disability, the student's responsibilities and obligations, the College's commitment, course sequence, accommodations, course substitutions, etc.

• *Interpreting Services*

One of the most critical components for any program for deaf and hard of hearing students is interpreting services. The success of a student's educational experience is greatly dependent on the quality and availability of interpreting services.

The College employs highly qualified, certified interpreters who are skilled in using American Sign Language. They function as a communication channel between the student and the instructor. Deaf and hard of hearing students may also request interpreting services for clubs and organizations supported by the College. Certain reasonable schedule adjustments may be necessary in order to provide interpreting services for students who need them.

• *Reader/Writer Service*

CPCC will provide readers for visually impaired and learning disabled students. These readers will assist students with reading textbooks and taking tests. Students who cannot take notes because of a hearing impairment, learning disability, physical impairment, or another disabling condition may receive assistance from volunteer notetakers.

Students, however, are encouraged to utilize alternative methods such as the use of tape recorders, lap-top computers, reading machines, adaptive technologies, instructor and/or classmate notes. The emphasis is placed on options/technologies the students can use to complete the work independently.

• *Tutorial Services*

Tutorial services are provided as a supplement to regular class work. Tutorial services, however, are not provided as a substitute for class prerequisites; for unsatisfactory work in prerequisite classes; or for poor class attendance. Tutorial services may be provided individually or in a group and may be requested at the Academic Learning Center.

• *Parking for Students with Physical Disabilities*

There are parking spaces for the handicapped throughout CPCC, and information about their locations is available from

the Services for Students with disABILITIES office. Students must display a handicapped parking card, obtained from the North Carolina Department of Motor Vehicles, in order to identify their vehicles properly when using these spaces.

• ***Unidentified Disabilities***

Students may have difficulties with their studies and be unaware of the presence of a disability. Students may continue to experience problems without knowing why. The Services for Students with disABILITIES office is available to discuss and make referrals to the appropriate resources so that students may obtain assessment and documentation.

• ***Postsecondary Education Consortium***

CPCC is a member of the Southeastern Postsecondary Education Consortium (PEC), one of four federally-funded Regional Postsecondary Education Programs for the Deaf. This program expands postsecondary opportunities to the deaf and hard of hearing students, promoting quality programs and services through innovative practices and outreach. CPCC's affiliation with PEC assures that the deaf and hard of hearing students receive the highest quality of services possible.

PEC also provides training programs for other college personnel within the NC Department of Community Colleges.

For more information on Services for Students with disABILITIES, call (704) 330-6621; TTY (704) 330-6421.

Short Term Training Programs

Short Term Training is designed to offer four-week to one-year programs, which will provide excellent job opportunities in the Charlotte area, and, in addition, a career ladder for advancement once employed.

Short Term Training is available in curriculum and non-curriculum course programs in many areas of high employability.

Registration for these programs is the same as for other CPCC programs. These programs are listed in the CPCC course schedule. Cost varies by program.

For more information, call (704) 330-6946.

Student Life

The Office of Student Life serves as a center for campus programs and activities, a resource for student organizations and community service projects, and a focal point for leadership development opportunities. Student Life provides direction, guidance, and resources for numerous on-going campus organizations, including the Student Government Association, Student Publications, Campus Ministries, and numerous student clubs and organizations.

Activities sponsored or supported by Student Life include campus-wide festivals, lectures, workshops, conferences, field trips, information booths and displays, musicians, and other entertainers. The Office of Student Life places priority on activities which support and enhance learning in the classroom, which provide opportunities for student leadership development, and which honor the rich diversity at CPCC and in the surrounding community.

For further information, come by the Office of Student Life in Van Every Building Room 106, or call (704) 330-6584.

• ***The Student Life Center***

The Student Life Center is located on the first floor of the Van Every Building, Room 102, Central Campus. It offers a place for students to relax between classes, study and prepare for class, or play boardgames. The Student Life Center is also frequently used for campus programs, lectures, and workshops. Meeting rooms are available to student clubs and organizations. The Student Government Association, Student Life Offices, and offices for several student organizations are located in the Student Life Center. Outside the Student Life Center, the patio with an adjoining stage is a popular location.

• ***Student Government Association***

The Student Government Association is the campus organization which represents the interests of all CPCC students. Membership is open to all currently enrolled curriculum students who are elected through the process outlined in the SGA Constitution. Its policies are in keeping with those of the CPCC Board of Trustees, the Administration, and the laws of the State of North Carolina.

The SGA serves as a resource for student clubs and organizations; coordinates two annual campus-wide festivals; sponsors blood drives, student appreciation days, musicians and entertainment activities; and reviews the expenditure of student activities fees. The SGA President serves as a non-voting member of the Board of Trustees, and SGA members frequently serve as student representatives on College committees.

The Executive Committee of the SGA is elected each spring and includes the president, vice-president, secretary, treasurer, and public information officer. Applications for senator positions are accepted during spring and fall semesters, and selection is made by vote of the Executive Committee. Copies of the senator applications and the SGA Constitution are available in the SGA office, located in the Student Life Center, Van Every Building, Room 104.

• ***Student Clubs and Organizations***

Student Life and the Student Government Association offer support, guidance, and resources to over forty student clubs and organizations on our campus. Some of these organizations focus on special interests, and others are directly related to curriculum programs offered at CPCC. Although some clubs have membership requirements, no organization at CPCC is allowed to discriminate on any grounds. A complete list of student clubs and organizations is included in the Student Handbook, which is available in the Office of Student Life, the Welcome Center, and other campus locations.

• ***Student Publications***

Student Publications, with support from the Student Life Office, is responsible for two periodic publications, each produced by a staff of CPCC students who work under the guidance of a Student Publications advisor. The SPARK is a student newspaper which informs students of College and community activities and serves as a forum for the exchange of ideas. KEYSTONE is an annual creative arts magazine showcasing student work in writing, photography, art, and computer generated art.

Staff positions for both THE SPARK and KEYSTONE include editors, writers, photographers, and design artists. Positions for THE SPARK staff are filled on an as needed basis. New writers and photographers are encouraged to apply at any time, and editors are usually chosen from the existing staff. The KEYSTONE staff is selected each spring to produce the magazine during the summer. New staff members for both publications are always welcome.

For more information, visit Central Campus, Van Every Building Room 109, or call (704) 330-6665.

• ***Lost and Found***

A lost and found service is located for the Central Campus in the Student Life Center, Van Every, Room 106. Any item found on the Central Campus should be brought to this office promptly where it will be logged in. If no one claims the item within a reasonable time period, it is donated to the Drama Department or a local charity.

To inquire about lost and found items, call (704) 330-6584.

Women's Resource Center

The Women's Resource Center is an on-campus facility designed to serve CPCC students. The overall mission of the Center is to promote the educational, personal, and professional development of women by providing referrals, information, and resources.

The Women's Resource Center is housed in Room 108 of the Student Life Center. The facilities include books by and about women, magazines on women's issues, and comfortable couches. Programs include workshops, seminars, lectures, and referrals on study skills, health education, financial management, legal issues, childcare networking, professional and personal development and women in arts.

Contact the Women's Resource Center at 330-6246.

TRIO Programs

TRIO is an Educational Opportunity for Low-Income and Disabled Americans

Our nation has asserted a committment to providing educational opportunity for all Americans regardless of race, ethnic background or economic circumstance.

In support of this commitment, Congress established a series of programs to help low-income Americans enter college, graduate and move on to participate more fully in America's economic and social life. These programs are funded under Title IV of the Higher Education Act of 1965 and referred to as the TRIO Programs (initially just three programs). While student financial aid programs help students overcome financial barriers to higher education, TRIO programs help students overcome class, social and cultural barriers to higher education.

Who is Served

As mandated by Congress, two-thirds of the students served must come from families with incomes under $24,000, where neither parent graduated from college. Over 1,900 TRIO Programs currently serve nearly 700,000 low-income Americans between the ages of 11 and 27. Many programs serve students in grades six through 12. Thirty-nine percent of TRIO students are White, 36 percent are African-American, 16 percent are Hispanic, 5 percent are Native American and 4 percent are Asian-American. Sixteen thousand TRIO students are disabled.

How it Works

Over 1,200 colleges, universities, community colleges and agencies now offer TRIO Programs in America.

TRIO funds are distributed to institutions through competitive grants.

Evidence of Achievement

Students in the Upward Bound program are four times more likely to earn an undergraduate degree than those students from similar backgrounds who did not participate in TRIO.

Nearly 20 percent of all Black and Hispanic freshmen who entered college in 1981 received assistance through the TRIO Talent Search or EOC programs.

Students in the TRIO Student Support Services program are more than twice as likely to remain in college than those students from similar backgrounds who did not participate in the program.

For more information about these programs, check on the website at www.trioprograms.org.

• ***Educational Talent Search***

Educational Talent Search is designed to assist potential first generation college students and students from low income families in completing high school and continuing their education at the post-secondary level. Educational Talent Search assists students in enrolling and completing the Adult High School Diploma Program (HDS) or General Education Development Program (GED) at CPCC and assists them in pursuit of education at the post-secondary level. Within the Student Development Group, Educational Talent Search works closely with Admissions, Testing Services, Counseling, Special Services, and Dropout Intervention.

Educational Talent Search offers personal, academic, and career counseling, and workshops on study skills, time management, career awareness, college awareness, decision making, and financial aid. Educational Talent Search's goal is to assist participants in establishing and/or reaching educational and career goals.

Educational Talent Search provides students with help in filling out admissions forms and financial aid applications. Educational Talent Search also offers fee waivers to assist with the cost of admissions applications and S.A.T. testing.

For more information, call (704) 330-6961 or 6393.

• ***Student Support Services***

Student Support Services is a federally funded TRIO program which provides academic support to develop students who are either first generation, low income, or have a disability, to their fullest potential. The Student Support Services program services are, but not limited to: academic counseling and advisement, career advisement, personalized guidance for eligible college transfer students in the college transfer process, assistance in obtaining financial resources to attend college, individualized tutoring, and cultural enhancements to broaden the students' educational experience.

For further information contact the Student Support Services office at 330-6532 or 330-6394.

• ***Upward Bound***

Upward Bound provides fundamental support to participants in their preparation for college entrance. This program provides opportunities for participants to succeed in pre-college performance and ultimately in higher educational pursuits. Upward Bound serves high school students grades 9-12 from low-income families, and families in which neither parent holds a bachelors degree. The goal of Upward Bound is to assist students to enroll in and graduate from institutions of postsecondary education.

The Upward Bound program provides instruction in math, laboratory science, composition, literature, and foreign language.

Other services include:

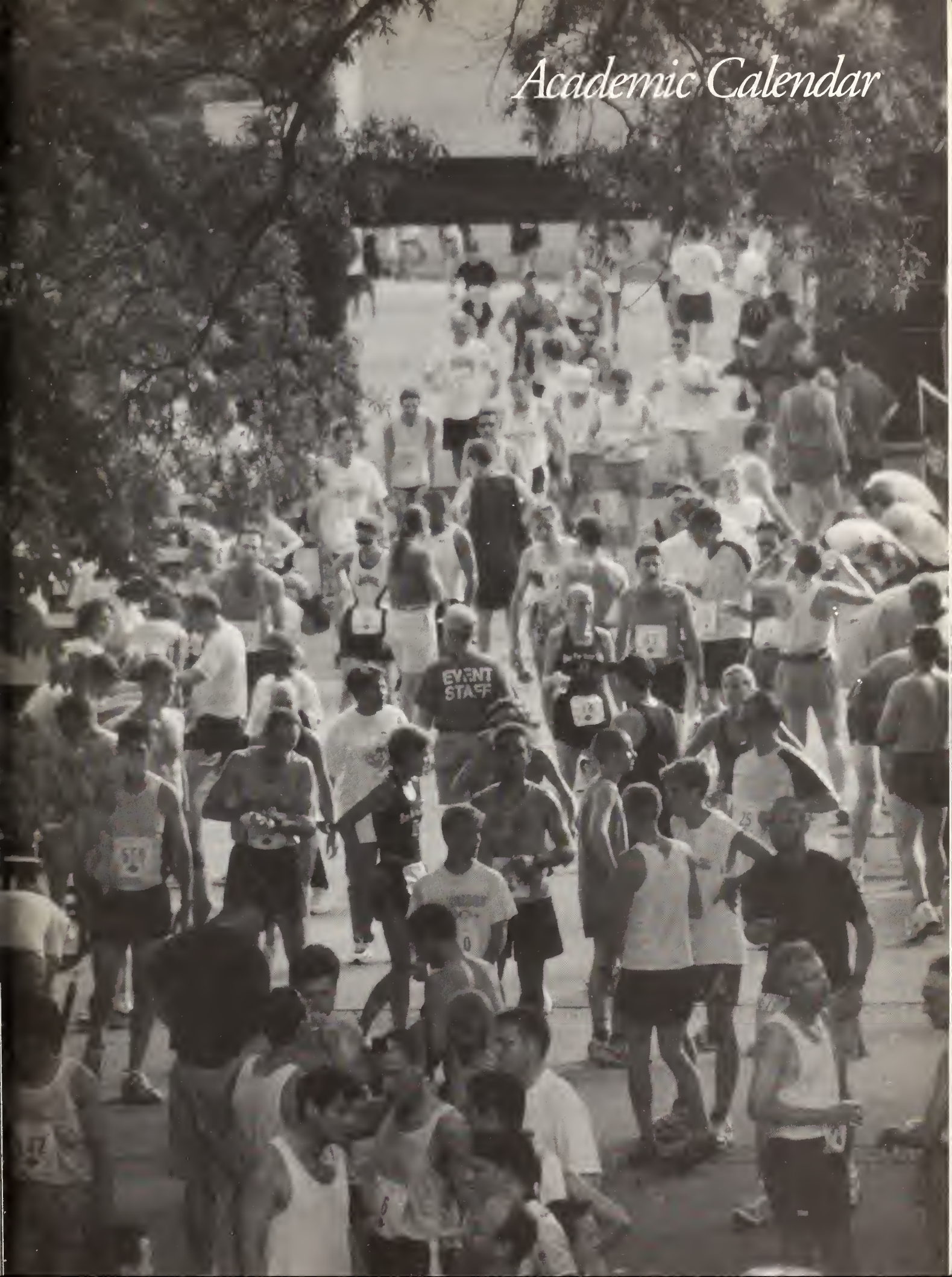
• Instruction in reading, writing, study skills, and other sub-

jects necessary for success in education beyond high school

- Academic, financial, or personal counseling
- Exposure to academic programs and cultural events
- Tutorial services
- Mentoring programs
- Information on postsecondary education opportunities
- Assistance in completing college entrance exams — SAT/ACT

For more information call (704) 330-6961.

Academic Calendar



Academic Calendar

Fall Semester 2001 - Fall Semester 2002

	S	M	T	W	T	F	S
Jan '01		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
Feb '01					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28			
Mar '01					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Apr '01	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					
May '01			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Jun '01						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
July '01	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
Aug '01				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Sept '01							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
Oct '01		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
Nov '01					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	
Dec '01							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					

Fall Semester 2001

Classes Begin.....Sat., Aug. 18
First Short Session.....Sat., Aug. 18 - Sun., Oct. 14
Labor Day Holiday.....Sat., Sept. 1 - Mon., Sept. 3
Fall Break (CPCC Open).....Mon., Oct. 15 - Tues., Oct. 16
Second Short Session.....Wed., Oct. 17 - Sun., Dec. 16
Thanksgiving Holiday .....Thurs., Nov. 22 - Sun., Nov. 25
Final Exam Period.....Mon., Dec. 10 - Sun., Dec. 16
Semester Ends .....Sunday, December 16
Winter Holidays.....Mon., Dec. 17 - Mon., Dec. 31
New Year's Holiday .....Tuesday, January 1

Spring Semester 2002

Classes Begin .....Sat., Jan. 12
First Short Session.....Sat., Jan. 12 - Sun., Mar. 8
Martin Luther King, Jr. Holiday .....Mon., Jan. 21
Spring Break (CPCC Open).....Sat., Mar. 9 - Fri., Mar. 15
Second Short Session .....Sat., Mar. 16 - Tues., May 14
Spring Holidays .....Fri., Mar. 29 - Sun., Mar. 31
Semester Ends.....Tuesday, May 14
Final Exam Period.....Wed., May 8 - Tues., May 14
Graduation .....Wednesday, May 15

Summer Term 2002 (10 weeks)

Classes Begin .....Thurs., May 30
First Short Session.....Thurs., May 30 - Wed., June 26
Memorial Day Holiday .....Mon., May 27
Second Short Session.....Thurs., June 27 - Thurs., July 25
Independence Day Holiday.....Thursday, July 4
Term Ends .....Thursday, July 25

Fall Semester 2002

Classes Begin.....Sat., Aug. 17
First Short Session.....Sat., Aug. 17 - Sun., Oct. 13
Labor Day Holiday.....Sat., Aug. 31 - Mon., Sept. 2
Fall Break (CPCC Open).....Mon., Oct. 14 - Tues., Oct. 15
Second Short Session.....Wed., Oct. 16 - Sun., Dec. 15
Thanksgiving Holiday.....Thurs., Nov. 28 - Sun., Dec., 1
Final Exam Period.....Mon., Dec. 9 - Sun., Dec. 15
Semester Ends .....Sunday, December 15
Winter Holidays.....Mon., Dec. 16 - Tues., Dec. 31
New Year's Holiday .....Wednesday, January 1

Academic Calendar

Spring Semester 2003- Fall Semester 2003

Spring Semester 2003

Classes Begin	Saturday, Jan. 11
First Short Session	Sat., Jan. 11 - Fri., Mar. 7
Martin Luther King, Jr. Holiday	Mon., Jan. 20
Spring Break (CPCC Open)	Sat., Mar. 8 - Fri., Mar. 14
Second Short Session	Sat., Mar. 15 - Tues., May 13
Spring Holidays	Fri., Apr. 18 - Sun., Apr. 20
Semester Ends	Tuesday, May 13
Final Exam Period	Wed., May 7 - Tues., May 13
Graduation	Wednesday, May 14

Summer Term 2003 (10 weeks)

Classes Begin	Saturday, May 31
First Short Session	Sat., May 31 - Fri., June 27
Memorial Day Holiday	Monday, May 26
Second Short Session	Sat., June 28 - Mon., July 28
Independence Day Holiday	Friday, July 4
Term Ends	Monday, July 28

Fall Semester 2003

Classes Begin	Saturday, August 16

CPCC is closed on holidays listed above.

Advisement Week and Registration dates for each term will be announced in the CPCC Class Schedule.

For additional information,
call the CPCC Information Center at (704) 330-2722.

	S	M	T	W	T	F	S
Jan '02			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Feb '02						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28		
Mar '02						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
Apr '02		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				
May '02				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Jun '01							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
Jul '02		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
Aug '02					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Sept '02							
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					
Oct '02			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Nov '02						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
Dec '02	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				



Admissions



ADMISSIONS QUICK REFERENCE

Adult Basic Literacy Education: ABLE
For students who want to read, write or compute at an adult level. (704) 330-6125, Sloan – Suite J.

Adult Basic Education
ABE: up through Grade 9
(704) 330-6125, Sloan – Suite J.

Compensatory Education
For students with special needs.
(704) 330-6033, Sloan 238.

Educational Talent Search
(704) 330-6961, 7th Street Center 109.

Student Support Services
(704) 330-6394, 7th Street Center 109E.

Financial Aid
(704) 330-6942, Garinger 206.

High School Programs
- College Experience. (704) 330-4435.
- High School Completion/Diploma (Grades 10-12). (704) 330-6864, TE 103.
- Concurrent Enrollment. (704) 330-4435.
- G.E.D. (704) 330-6125, Sloan, Suite J.

Human Resources Development
- Self-Directed Job Search (704) 330-6969.
- Banking Skills / Ten Key
- Customer Service / CRT / Keyboarding
- Ten Key / Keyboarding
  (704) 330-6969, Sloan, Suite H
- Career Management

International Students Admissions
- F-1 Visas and those changing to F-1 status. Admissions. 2nd floor Terrell, (704) 330-6456.
- Other visa types - Admissions. 2nd floor Garinger. (704) 330-6590.
- Permanent Resident Aliens. Admissions. 2nd floor Garinger. (704) 330-6006.
- Limited English Proficiency /English as Second Language Testing. (704) 330-6310 / 6838
- Academic ESL Testing, Testing Center, (704) 330-6031.

Sponsored Programs
South Campus Business Office,
(704) 330-4262.

Multi-Skills Center
Job Skills Training for Vocational Rehabilitation Clients
Taylor, (704) 330-6037.

Services for Students With disABILITIES
Hearing, Learning, Physical, Sight Disabilities.
(704) 330-6621, Terrell 219.

Veteran and Military Affairs
(704) 330-6942 / 6785, Garinger 206.

Central Campus Tours for Prospective Students

The College encourages individuals and groups to visit for a tour with a guide from Student Recruitment. Open tour days are Tuesday and Wednesday at 3:30 p.m. When possible, faculty will explain their instructional areas and laboratories in response to special interests indicated by participants when the tour is scheduled. Call (704) 330-6040 to arrange a tour.

Admissions

Central Piedmont Community College follows an "open door" policy which welcomes all students without regard to color, creed, disability, race, national origin, or sex. Admission to the College, however, does not mean that students will be admitted immediately to a program with specified admissions requirements.

Steps in admissions vary, depending on what a student plans to accomplish at CPCC. Students are encouraged to contact the College early, in order to complete the steps outlined here before the registration period begins. Questions should be directed to any CPCC campus or area center or by calling (704) 330-CPCC. The College is also described through a home page on the Internet at http://www.cpcc.cc.nc.us.

*A. **Students who plan to enter a degree, diploma, or certificate program*** need to complete these steps ***before*** registration begins:

1. Students should ***complete a CPCC admissions form,*** which is available at the Welcome Center, the Admissions Center, at any area center or campus, by mail or at www.cpcc.cc.nc.us. Students should indicate the program they are planning to enter. **NOTE:** Students who plan to transfer to a four-year college or university after one or two years at CPCC should select either the Associate in Arts, Associate in Fine Arts, or Associate in Science Degree program.
2. Students who are planning to ***apply for financial aid and scholarship consideration*** should begin the process now. The first step in applying for all types of assistance, including scholarships, is to complete the Free Application for Federal Student Aid (FAFSA). (Applications are

available from the Financial Aid Office, Welcome Center, area centers and campuses, and in all local high school guidance counseling offices.) They should complete and mail the Free Application for Federal Student Aid in the envelope provided to the federal government's Processing Center, or apply electronically over the Internet at http://www.fafsa.ed.gov. The Financial Aid Department will contact the students by mail once they have drawn down the student's processed student aid report. Students are welcome to come by the Financial Aid/Veterans Affairs office if they have questions.

3. Students should ***have official transcripts mailed*** from each high school and/or college previously attended to **Admissions, CPCC, PO Box 35009, Charlotte, NC 28235-5009.** Home schooled students must produce evidence as well of completion of a state approved home school program. The name the student is currently using and the social security number should appear on each transcript. **Note:** Students who have an associate degree or higher from an accredited college or university are not required to submit high school transcripts.

4. Students applying for a certificate program are not required to submit high school transcripts, however, students who decide to continue their studies and apply for a diploma or degree program should refer to #3 above for regulations. Students applying for financial aid/veterans affairs still need a high school transcript on file.

5. Students who are unable to produce official high school transcripts must present evidence of high school graduation.

6. Students who have completed college level coursework at another institution **and** are seeking a diploma or degree from CPCC must fill out a request for an official transcript evaluation. Forms are available in the Student Records Office at any campus.

7. Students ***should take placement tests*** as required for the degree, diploma, or certificate programs they plan to enter. Appointments for placement tests are made at Admissions on all campuses or by calling (704) 330-CPCC. Students who mail in their admissions forms will receive mailed instructions for scheduling appointments for assessment.

8. After placement tests, students should meet with an academic advisor. The advisor will provide an overview of their assessment results, program information, an educational plan, and recommended lists of courses for which to register during their first term at CPCC.

B. Students who want to change their programs need to make an appointment with the program counselor for the new program ***before*** registration begins.

C. New students who need career/life planning assistance before selecting a program should do the following:

1. Get an admissions form from the Welcome Center, the Admissions Center, one of the area centers or campuses, or request that one be mailed by calling (704) 330-CPCC, or submit online at www.cpcc.cc.nc.us. This should be completed and submitted before registration begins. Indicate "Undecided," instead of selecting a program. For students who have a general idea about their specific area of study, but still prefer to indicate "Undecided," program areas have been included in the "Undecided" category on the Admissions Form to allow students to select a program area as closely related to their specific interests as possible.

2. Follow step under A7 for assessments.

3. Meet with an academic advisor before registering to discuss test results and receive assistance in developing an educational plan that correlates with life goals and objectives.

D. Currently enrolled students who need career counseling may schedule an appointment with the career/life planning counselor by calling (704) 330-6359.

E. General Orientations are held four times per term. New students should attend one of these sessions to receive more in-depth information on College resources, program and career options, and tips on how to be successful students.

F. Students who plan to complete high school (grades 10-12).
CPCC offers the Adult High School Diploma Program (HSD) and the Tests of General Educational Development (GED):

1. The ***Adult High School Diploma (HSD)*** Program leads to an earned diploma granted by the Charlotte/ Mecklenburg Board of Education. For graduation, the Board requires four units of English, three units of mathematics (including algebra), one unit of government and economics, one unit of United States history, one unit of world cultures/history, one unit of biology, one unit of physical science, one unit of earth science/ecology, seven electives (including Computer Literacy) and a passing score on the North Carolina Competency Test. Students who have not completed a required unit must enroll for at least one term of study in the appropriate HSD course for that subject. The unit toward graduation is earned in that subject by passing the examination at the end of the course. The North Carolina Competency Test is administered on a regular basis. There is no charge for high school diploma classes or for the Competency Test. There is a charge for some elective classes.
For more information, call (704) 330-6864.

2. ***The Tests of General Educational Development (GED).***
GED Testing offers another opportunity for students who have not completed high school. A High School Diploma Equivalency is awarded by the North Carolina Department of Community Colleges after a student passes five individual tests in writing skills (including a written essay requirement), social studies, science, literature and arts, and mathematics. A pre-test is used to evaluate performance levels and instructional needs before testing. GED classes are available on the Central campus and at several off-campus locations. The off-campus classes are self-paced and allow students to progress at their own learning rates. There is no charge for pre-testing or GED classes; however, there is a $7.50 fee for final GED testing.
For more information, call (704) 330-6949.

G. Students who plan to complete grade 9: Adult Basic Education (ABE) is available for students whose schooling stopped short of the ninth grade. ABE provides instruction in basic reading and mathematics. Upon completion of the ABE program, students may enter the Adult

High School Diploma Program or GED Program. There is no charge for these classes. ABE classes are offered at numerous locations.

For more information, call (704) 330-6125.

H. Adult students who plan to learn basic skills in reading and mathematics:

The Adult Basic Literacy Education (ABLE) program is located at community sites. This program offers a new approach for adults who want to read, write, or calculate at an adult level. The program combines the use of microcomputers, video systems, audio tapes, specialized programming, and tutors to teach adults reading and mathematics skills. Instructors guide students through program materials and help with the use of equipment. There is no charge for ABLE instruction. For more information, call (704) 330-6125.

The Compensatory Education Program provides classes in basic literacy and life skills for adults who have different learning needs because of a cognitive disability. Classes are offered on the Central Campus Monday – Friday between 9:00 a.m. and 6:00 p.m. Instructors work with each student to establish individual educational goals. The classes cover a variety of subjects that are listed in the course descriptions with a CED prefix. There is no charge for the classes. For more information call (704) 330-6033.

English as a Second Language is a program offering courses which enable students to master English as a second language. Students study the customs and traditions of American culture while learning the language. Academic and/or vocational courses may be taken when the student's language proficiency allows. Consult course descriptions with EFL or LEP prefixes. For more information call (704) 330-6838.

I. Students currently enrolled in Charlotte area high schools who want to take courses at CPCC:

For information about the College Experience Program and the Concurrent Enrollment Program, see Admissions Quick Reference at the beginning of this section of the catalog.

J. Students who do not plan to enter a degree, diploma, or certificate program at CPCC and who want to take courses of special interest:

Course descriptions in this catalog list the prerequisites (requirements) that must be met before registering for a course. Please note that ENG 111 (Expository Writing) and certain mathematics courses require placement assessment before registration. For these courses, contact Admissions at any campus to schedule a placement test. For more information, call (704) 330-2722.

K. International Students who are legal residents with permanent visas: Alien Registration Card holders are admit ted to Central Piedmont Community College in the same manner as native citizens of the United States. Legal residents who need English as a Second Language are referred to the ESL Lab, Van Every 302, for placement tests and assistance. International visitors holding B-2 or other visas may enroll for classes of their choice as long as they hold a valid visa.

International students on F-1 Visas: These students must have a TOEFL (Test of English as a Foreign Language) score of at least 500 (or computerized test score of 173) before entering a degree or diploma program. When the TOEFL score is below 500, the student is required to take English as a Second Language (ESL) courses until retesting at CPCC establishes the required proficiency level.

Any international student (non-immigrant) who is admitted to CPCC under an F-1 student visa must purchase medical insurance prior to registration each semester.

Applications for international student enrollment at CPCC are available in the Office of International Programs and Services, Terrell, 2nd floor, (704) 330-6456. A non-refundable, $35 fee will be charged for all applications.

L. Reasonable Accommodation(s): Reasonable accommodation(s) will be made for students with disabilities who feel they need assistance and/or accommodation(s) in the admissions and enrollment process or in the educational environment or requirements of a course, program, activity, or service.

Central Piedmont Community College does not discriminate against qualified individuals with disabilities. More over, as required by law, the College will provide reason able accommodation(s), based on reported disabilities, to otherwise qualified applicants for admission or students in all education programs, activities, services, and practices, including application procedures, admissions, student assignment, course assignment, the awarding of degrees, discipline, and dismissal. Educational opportunities will not be denied to an otherwise qualified applicant or student because of his or her disability or because of the need to make reasonable accommodation(s) for the physical or mental disability of such individuals.

Applicants or students with disabilities who feel they need such assistance should contact Services for Students with disABILITIES, (704) 330-6621. A copy of the college's policy "Provision of Reasonable Accommodation for Education Programs, Activities and Other Services" is also available in the Office of the Dean of Student Development upon request. Students may also contact the Director of Affirmative Action and Compliance, Terrell 522, (704) 330-6424, if they have any questions or concerns about reasonable accommodation(s).

Registration

The College year consists of three terms. Fall and spring semesters are 16 weeks each, and summer term is 10 weeks. Though shorter, summer classes carry the same course credit as those in other terms. (See Academic Calendar.)

Students entering a degree, diploma, or certificate program must complete the admissions process prior to registration.

Returning CPCC students or new students who have completed the admissions process may register from a touch-tone telephone or by the internet at www.cpcc.cc.nc.us. Those wishing to register by telephone or the web will find information in the class schedule. All registration services are offered at five locations: Central Campus, North Campus, South Campus, Southwest Campus and West Campus.

Students are encouraged to register as early as possible to avoid the heavy traffic of final registration and to ensure that they get a schedule that best meets their needs.

ADMISSIONS/CHANGE OF ADDRESS FORM

Please Detach Admissions/Change of Address Form and Return To: CPCC Admissions, P.O. Box 35009, Charlotte, NC 28235 or fax to: (704) 330-6136

Please Print

1. Social Security Number ___-___-____
   (Used for information purposes only. If you do not wish to reveal this information, please contact the admissions office at any CPCC campus for alternatives.)
2. Last name _____
3. First name _____ 4. Middle initial __
5. Street number & name / Apt. No. / P.O. Box
   _____
6. City _____ 7. State __ 8. Zip _____-____
9. You are a resident of what state? __
   If North Carolina, what county? _____
10. Home phone (___) ___-____ 11. Work phone (___) ___-____
12. Emergency phone (___) ___-____
13. E-Mail address _____

PERSONAL INFORMATION

(For statistical purposes only. Data is collected voluntarily and will not be used in admissions decisions.)

14. Birth date: Month/Day/Year __/__/____
15. Sex: ❑ F ❑ M *(Check one)*
16. Ethnic group: *(Check one)*
    - ❑ Asian-American/Asian (R)
    - ❑ African-American/Black(B)
    - ❑ Latino/Hispanic (S)
    - ❑ Native American/Alaskan (I)
    - ❑ White/Caucasian (W)
    - ❑ Other (O)
17. Employment status while enrolled: *(Check one)*
    - ❑ 1. Employed full-time (40 or more hrs/wk)
    - ❑ 2. Employed part-time (21-39 hrs/wk)
    - ❑ 3. Employed part-time (1-20 hrs/wk)
    - ❑ 4. Unemployed and seeking a job.
    - ❑ 5. Unemployed and not seeking a job.
    - ❑ 6. Retired

(1)

CITIZENSHIP INFORMATION

18. Select the appropriate designation:
    - ❑ US Citizen
    - ❑ Non-citizen, Country of Citizenship
      _____
    - ❑ Permanent Resident Alien
      Resident Alien Card Number _____
      Issue Date: Month/Day/Year __/__/____
    - ❑ Refugee
    - ❑ Non-Immigrant Alien
      Non-Immigrant Visa Type: *(Check one)*
      ❑ B1 ❑ B2 ❑ F1 ❑ H1 ❑ J1 ❑ Other (OV)

EDUCATION HISTORY

19. High school attended.
    Enter two digit code from listing:__

01 East Meck	10 West Meck	90 Mecklenburg Private: ❑
02 Garinger	11 Providence	91 Other NC High School:
03 Harding	12 Mayfield	❑ Public ❑ Private
04 Independence	13 Wesley	County _____
05 Myers Park	14 Midwood	Name of HSCountry
06 North Meck	15 Zebulon Vance	92 Out of State:
07 Olympic	16 David Butler	State __ __
08 South Meck	17 NW Sch. of Arts	93 Out of Country:
09 West Charlotte		Country_____

20. Highest grade completed: *(Including college level courses)* __ __
21. Last Date Attended High School: Month __ __Year ____
22. High School Graduate? ❑ Y ❑ N *(Check one)*
23. Completed GED: ❑ Y ❑ N *(Check one)*
    Adult High School? ❑ Y ❑ N *(Check one)*
24. Highest educational level completed: *(Check one)*
    ❑ Vocational Diploma (V) ❑ Bachelor's Degree (B)
    ❑ Associate Degree (A) ❑ Master's Degree or higher (M)
25. Schools attended: *If enrolling for a degree or program, you must request that copies of your transcripts (high school included) be sent to the Admissions/Records Center. High school transcript must include date of graduation and social security number. Students who have earned an Associate or higher degree from an accredited institution should submit only college transcripts.*
    Name: _____
    Location: _____
    Dates Attended: __/____ to __/____

    Name: _____
    Location: _____
    Dates Attended: __/____ to __/____

    Name: _____
    Location: _____
    Dates Attended: __/____ to __/____
26. High school track: *(Check one)* ❑ College Prep (C) ❑ Unknown
    ❑ College Tech Prep (T) ❑ General Tech (G) ❑ Other (O)
27. Have you completed with a grade of "C" or better?
    College freshman English: ❑ Y ❑ N *(Check one)*
    College level mathematics: ❑ Y ❑ N *(Check one)*

GOALS INFORMATION

28. What is your main reason for attending? *(Check one)*
    - ❑ 1. Improve reading, writing, math skills
    - ❑ 2. Prepare for first job/career
    - ❑ 3. Prepare for different job/career
    - ❑ 4. Update/improve skills for current job
    - ❑ 5. Prepare for transfer to a four-year college
    - ❑ 6. Personal interest/self enrichment
    - ❑ 7. Other

(3)

29. Do you have difficulty with English because it is not your native language? ❑ Y ❑ N *(Check one)* __

(8)

30. What is your main educational goal at CPCC? *(Check ONE only)*
    - ❑ 1. Complete selected courses, don't intend to graduate
    - ❑ 2. Earn a high school diploma or GED
    - ❑ 3. Earn a six-month college certificate
    - ❑ 4. Earn a one-year college diploma
    - ❑ 5. Earn a two-year associate degree-career program
    - ❑ 6. Earn a two-year associate degree-college transfer
    - ❑ 7. Other
    - ❑ 8. Transfer to another community college

(2)

31. I plan to begin classes: *(Check one)*
    Term: ❑ Fall ❑ Spring ❑ Summer Year: __ __ __ __
32. I plan to attend: *(Check one)* ❑ Day ❑ Evening
33. If you plan to pursue a degree at CPCC, what is your Program of Interest: *(Select a number from page 47)* __ __ __ __ __ __ __

RESIDENCY INFORMATION

North Carolina Law (G.S. 116-143.1) requires that "To qualify as a resident for tuition purposes, a person must have established legal residence for at least 12 months immediately prior to his/her classification as a resident for tuition purposes."

Domicile-One's permanent dwelling place of indefinite duration, as distinguished from a temporary place of abode; synonymous with "legal residence."

It is the responsiblity of the applicant to prove status as an in-state resident.

34. I have lived in North Carolina since:
    Month/Day/Year __ __ /__ __ /__ __ __ __
35. Have you lived in North Carolina continuously for the past twelve months? ❑ Y ❑ N *(Check one)*
    If NO, what state or country? __ __ __ __ __ __ __ __ __ __
    State in which you pay income tax as a resident __ __
36. Drivers License State:__ __ Number: __ __ __ __ __ __ __ __
    Issue Date: _____
    Expiration Date: _____

MILITARY/VETERANS INFORMATION

37. Are you a veteran? ❑ Y ❑ N *(Check one)*
38. Are you eligible for VA benefits? ❑ Y ❑ N *(Check one)*
39. Are you active duty military or military dependent?
    ❑ Y ❑ N *(Check one)*
40. If active duty, are you stationed in NC? ❑ Y ❑ N *(Check one)*
41. If active duty, is NC your Home of Record? ❑ Y ❑ N *(Check one)*
42. If military dependent, what is Military ID card expiration date:
    Month/Day/Year __ __ /__ __ /__ __ __ __

CERTIFICATION OF ACCURACY

I certify that the responses on this form are true and complete, and I understand that, if found otherwise, it may be cause for delay or denial of admission, loss of credit or dismissal. I agree to abide by the rules of the College.

Applicant's Signature _____

Date _____

For Office Use Only

Admissions

Accepted at:

_____ Date: _____

__ U.S. Mail Date: _____

__ Accepted by _____

__ In State __ Out-of-State _____ Initials ____
__ Master File Created (date) _____ Initials ____
__ H.S. Transcript In _____ Initials ____
__ College Transcript In _____ Initials ____
__ Checked for Other File _____ Initials ____

Notes _____

CENTRAL PIEDMONT COMMUNITY COLLEGE

Central Piedmont Community College is an equal opportunity/affirmative action institution. Auxiliary aids for individuals with disabilities will be made available upon request ten working days prior to the event. (Call 704/330-6739.) Central Piedmont Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404/679-4501) to award associate degrees, diplomas, and certificates. Information about Central Piedmont Community College's graduation and transfer out rates is available upon request from the office of the Dean of Student Development. Campus crime statistics are available for review on the College website, in the student handbook and at campus security offices and reception areas.

Registration, Central Piedmont Community College. CPCC 1049 Rev. 3/01)

Educational Goals

Choose the degree and area which most closely represents your area of interest and enter the code number in #33 of this ..form.

College Transfer (For those planning to transfer from CPCC to a 4-year college, the first two years of a 4-year major)

Associate in Arts (AA) Degree A10100

Examples:

Business/Accounting Education Nursing Sociology Undecided College Transfer A10100C
English Humanities Psychology Other_____

Associate in Science (AS) Degree A10400

Examples:

Computer Science Science Other_____
Engineering Pre-Med/Pre-Dentistry/Pre-Veterinary

Associate in Fine Arts (AFA) Degree A10200

Art Music Dance

Other Associate Degree Programs

Associate in Applied Science (AAS) Degree Programs

(These programs are designed for employment. However, some programs will be accepted by senior institutions toward specific degree programs. See program counselor for details.

Accounting A25100
Advertising and Graphic Design A30100
Air Conditioning, Heating and Refrigeration Technology.....A35100
Architectural Technology A40100
Automotive Systems Technology.....A60160
Business Administration.....A25120
International Business Conc. A2512D
Marketing and Retailing Conc. A2512F
Operations Management Conc. A2512G
Cardiovascular Technology A45170
Civil Engineering Technology A40140
Computer Engineering Technology A40160
Computer Programming A25130
Criminal Justice Technology A55180
Culinary Technology A55200
Dental Hygiene A45260
Early Childhood Associate A55220
Electrical/Electronics Technology A35220
Electrical Engineering Technology A40180
Electronics Engineering Technology A40200
Fire Protection Technology A55240
Graphic Arts and Imaging Technology A30180
Flexography Concentration.....A3018A
Health Information Technology A45360
Heavy Equipment & Transport Tech. A60240
Horticulture Technology.....A15240
Hotel and Restaurant Management A25240
Human Services Technology A45380
Development Disabilities Conc. A4538A
Gerontology.....A4538B
Substance Abuse Concentr ation.....A4538E
Industrial Maintenance Technology.....A50240
Information Systems.....A25260
Conc. in Network Admin. & Support.....A2526D
Interior Design A30220
Internet Technologies A25290
Interpreter Education.....A55300
Machining Technology.....A50300
Manufacturing Engineering Tech.....A40300
Mechanical Engineering Technology.....A40320
Medical Assisting A45400
Medical Laboratory Technology A45420
Nursing, Associate Degree A45120
Office Systems Technology A25360
Legal Concentration A2536A
Medical Concentration A2536B
Paralegal Technology A25380
Physical Fitness Technology A45610
Physical Therapist Assistant.....A45640
Respiratory Care A45720
Surveying Technology A40380
Telecommunications and Network Engineering Technology A40400
Travel and Tourism Technology A25440
Welding Technology.....A50420

Associate in General Education (AGE) Degree A10300

(For those not interested in a complete career-oriented program, or who do not intend to transfer to another college, or who want to take courses to meet a special personal or vocational objective.

Diploma Programs

Air Conditioning, Heating and Refrigeration Technology D35100
AutoBody Repair D60100
Automotive Systems Technology D60160
Computer Programming D25130
Computer Operations Concentration
Dental Assisting D45240
Electrical/Electronics Technology.....D35220
Heavy Equipment & Transport Tech.....D60240
Horticulture Technology D15240
Hotel Restaurant Managment Diplomas
Hotel Management D25240-D1
Restaurant Management D25240-D2
Industrial Maintenance Technology D50240
Machining Technology D50300
Mechanical Drafting Technology D50340
Medical Assisting.....D45400
Office Systems Technology Diplomas
General Clerical Skills D25360-D1
Word Processing Operator D25360-D2
Paralegal Technology D25380
Travel and Tourism Technology D25440
Welding Technology D50420

Certificate Programs

In addition to the following certificate programs, CPCC offers a specific series of technical/vocational skill courses which usually can be completed in one year or less.

Self-Improvement/Special Interest Classes **T90990**
Not eligible for financial aid.

Corporate and Continuing Education Classes ..... **E**

Student Request for Transfer of
High School or College Grades

In order to complete your admission to Central Piedmont Community College, you must request an OFFICIAL TRANSCRIPT of your grades from all previous schools attended (high school and college).

Please complete the following information and mail this form to your High School Counselor or College Registrar:

FROM: _____ / _____ / _____
LAST **FIRST** **MIDDLE/MAIDEN**

SOCIAL SECURITY NUMBER: _____ BIRTH DATE: _____

ADDRESS: _____ / _____ / _____ / _____
Box/Route/Street **City** **State** **Zip**

I GRADUATED FROM OR ATTENDED: _____
High School/College/University

GRADUATION DATE OR DATES OF ATTENDANCE: _____ / _____
Month **Year**

Number of Copies Needed:_____ Amount Enclosed: $_____

I certify the release of this record: _____
Signature of student

Please mail my official grade transcript to:

Director of Admissions
Central Piedmont Community College
P.O. Box 35009
Charlotte, NC 28235

Reminder: Please contact your high school or former college/university to determine their transcript fee. After you've contacted your former school(s), mail or present this form and transcript fee to any college/university you have attended.

Request for Transcript Evaluation Form

(DO NOT REQUEST AN EVALUATION UNTIL ALL TRANSCRIPTS HAVE ARRIVED AT CPCC)

PLEASE PRINT CLEARLY

NAME: _____ / _____ / _____
LAST **FIRST** **MIDDLE/MAIDEN**

DAYTIME TELEPHONE NUMBER:_____

SOCIAL SECURITY NUMBER: _____ TODAY'S DATE: _____
(Student ID Number)

Please evaluate transcript(s) from the college(s)/university(ies) listed below:

1. _____ **3.** _____

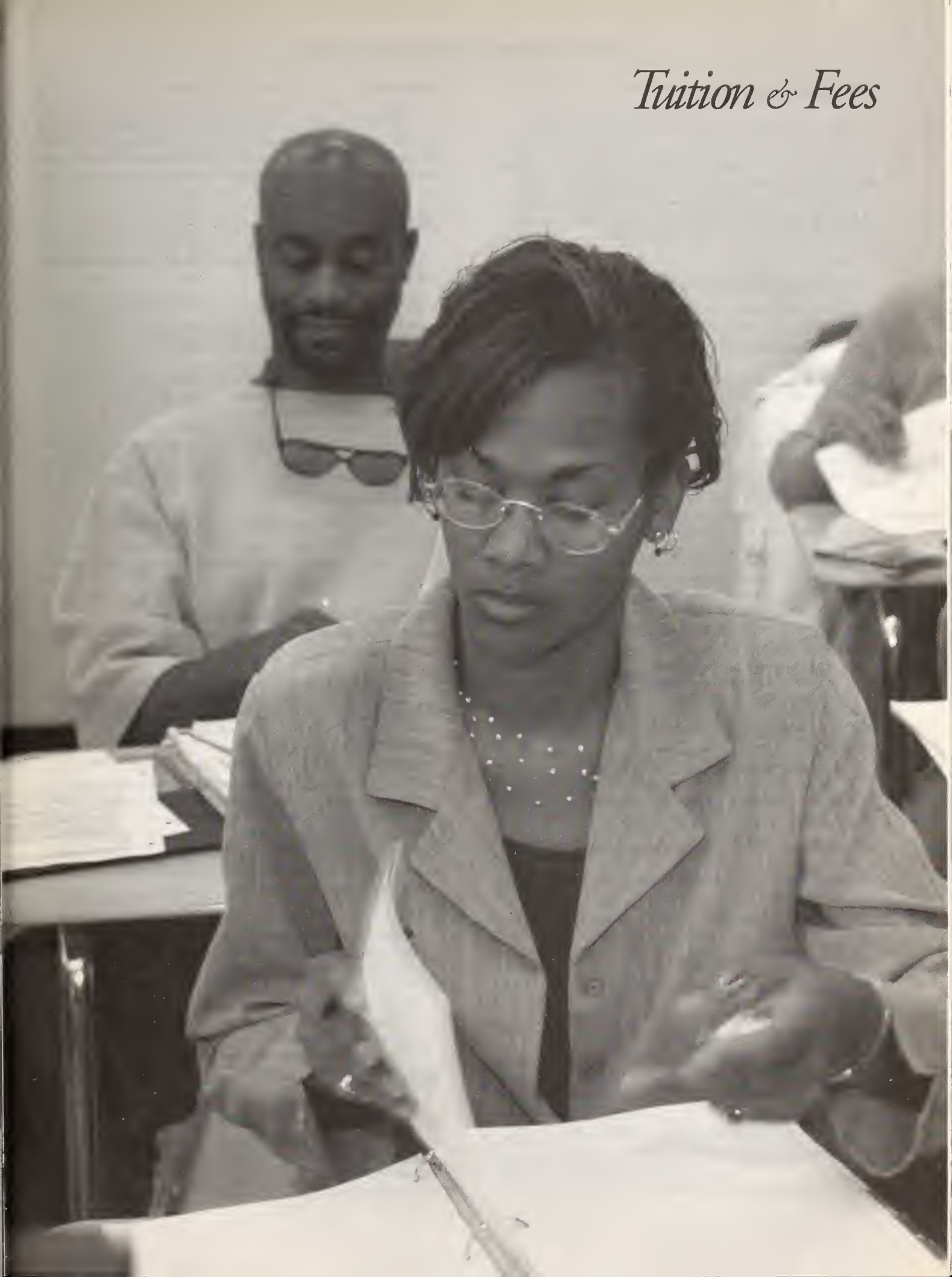
2. _____ **4** _____

PLEASE NOTE: An Admissions Form and Official Transcripts from all regionally accredited colleges/universities must be on file before an evaluation will occur. It is the responsibility of the student/applicant to provide official transcripts. Student copies will not be accepted. INTERNATIONAL TRANSCRIPTS MUST BE EVALUATED BY AN INTERNATIONAL EVALUATOR BEFORE WE WILL ACCEPT CREDITS.

Check box if you are a V.A. student ☐


CHARLES
FORD
REAR

Tuition & Fees



Tuition and Fees

(Tuition and fees are subject to change without notice).

Tuition and the Student Publications/Activity Fee must be paid within 5 business days after registration. Cash, check, or credit card (MasterCard, American Express or Visa) are accepted. If not paid in 5 business days, your registration will automatically be canceled.

Tuition

In-State students registering for curriculum courses:

- Fewer than 16 semester hours: $27.50 per semester credit hour.
- 16 semester hours or more: $440.00 per semester.

In-State students registering for courses and seminars offered through Corporate and Continuing Education:

- State funded Occupational Extension classes are charged per course. Additional fees may be charged to cover the cost of special software or equipment.
- A fixed charge per scheduled hour of instruction will apply to Occupational Extension classes taken more than twice within a 5-year period. Students are primarily responsible for monitoring course repetitions.
- Tuition for self-supporting classes will vary with course costs.
- $1.00 Student Publications/Activity Fee.

In-State students registering for High School Diploma or G.E.D. courses:

- No tuition or fee.

Out-of-State students registering for curriculum courses:

- Fewer than 16 semester hours: $169.75 per semester credit hour.
- 16 semester hours or more: $2,716.00 per semester

Out-of-State students registering for courses and seminars offered through Corporate and Continuing Education:

- Same as in-state students

Out-of-State students registering for High School Diploma or G.E.D. courses

- Same as in-state students

Student Publications/Activity Fee

- $10.00 per semester for 1 to 8 credit hours.
- $19.00 per semester for 9 or more credit hours.
- Maximum fee is $19.00 per semester.

The Student Publications/Activity Fee is used to support the Student Life Center and many co-curricular and extra-curricular programs. Among these are student government, student publications, clubs and organizations, intramural sports, educational activities, speakers and entertainers of various kinds.

Lab Fees

Many courses that contain lab hour credits will charge a lab fee of $12.00 per lab hour credit with a maximum fee of $48.00 per semester. Lab fees will be used to provide supplies and equipment in the respective program.

Refund Policy

The North Carolina Community College/System establishes the refund policy:

Curriculum Classes

- All tuition will be systematically refunded by the College for any class canceled by the College.
- 100% of tuition paid will be refunded by the College if the student officially withdraws from the class prior to the first day of the academic semester.
- 75% of tuition paid will be refunded by the College if the student officially withdraws from the class on or after the first day of the academic semester through the 10% point of the semester.

Corporate/Continuing Education (Occupational Extension Classes)

- All tuition will be systematically refunded by the College for any class canceled by the College.
- 100% of tuition paid will be refunded by the College if the student officially withdraws from the class prior to the first day of the class.
- 75% of tuition paid will be refunded by the College if the student officially withdraws from the class on or after the first day of the class through the 10% point of the class.

Self-Supporting Courses

Refunds/Cancellations/No Shows:

Cancellations received at least seven (7) business days prior to the start date of the class are eligible for a full refund. After that, cancellations are subject to the entire class fee. Please note that if you don't cancel and don't attend, you are still responsible for payment. We reserve the right to cancel classes at any time without prior notice. Tuition will be refunded 100% for any class canceled by the College.

Fees

- Appropriate lab fee amounts will be refunded if the class is canceled by the College or the student drops a lab fee class during the 100% refund period.
- Student activity fees or student accident insurance are not refunded unless the class is canceled by the College.

***This policy is subject to approval or change by the North Carolina Community College System.**

Return to Title IV Funds for Financial Aid Recipients

Federal regulations require recalculation of federal financial aid eligibility for students who withdraw, drop out, or are dismissed prior to completing **sixty percent** of an academic term. An example of the return to Title IV fund calculation is available in the Financial Aid/VA Office. Recalculation is based on the percent of aid using the following formula: Percent earned =

Number of days completed up to the withdrawal date divided by the total days in a semester/term. If the calculation results in an overpayment, the student will owe the balance to the College. The student should come by the Financial Aid Office to make payment on this balance. If the student fails to pay the debt to the institution within 45 days of notification, the debt will be reported to the U.S. Department of Education as an overpayment. Federal eligibility is lost until the debt is paid or satisfactory arrangements are made with the U.S. Department of Education. Students **must** notify the Financial Aid Office before withdrawing.

Student Insurance (Optional)

Two kinds of insurance coverage are available to students through CPCC:

Insurance Coverage

1. Accident Medical Plan

This plan insures students against loss resulting from accidental bodily injury sustained while at the College or while participating in or attending an activity exclusively organized, sponsored, and solely supervised by the College and College employees, including **travel directly to or from such activity in a vehicle furnished by the College.**

The plan pays up to $10,000 for each accident which may include the costs of medical and surgical treatment, hospital confinement, and the services of a trained nurse during one year from the date of the accident.

Students wishing to have this coverage check the "Yes" box on their Registration Form. Coverage begins when tuition and the $3.75 insurance fee are paid at registration. Coverage stops at the end of the term.

2. Medical Hospitalization Group Plan

This plan is available to students enrolled for six or more credit hours. It provides accidental death benefits, maternity benefits, semi-private room, and major medical coverage up to $3500. Benefits will be paid in addition to other insurance coverage. The cost is $62.70 per semester or $185.90 per year. Spouses and unmarried children may be covered for an additional charge. Coverage begins the day that payment is received by the company and ends on the last day of class for the period in which premiums are paid. Benefit Services Inc., P.O. Box 4138, Akron, Ohio 44321 is the provider (1-800-367-3762).

Residence Status

A legal resident of North Carolina is one who has domicile in the State. It is important that all applicants for admission and all enrolled students know their residence status for tuition payment and understand the regulations governing status. The "Student Residency Manual" is available for review in the Campus Registration Centers.

The following regulations cover most situations:

1. Persons 18 years of age or older are not deemed eligible for the lower tuition rate unless they have maintained legal residence in North Carolina for at least the twelve months preceding enrollment in an institution of higher education in this State.

2. The legal residence of a person under 18 years of age at the time of enrollment in an institution of higher education in this State is that of the student's parents, surviving parent or legal guardian. If the parents are divorced or legally separated, the legal residence of the minor is that of the parent to whom legal custody has been awarded.

3. The residence status of all students is determined at the time of their enrollment in an institution of higher education in North Carolina and may not thereafter be changed except: (a) in the case of a non-resident minor student at the time of enrollment whose parents have subsequently established legal residence in North Carolina; (b) in the case of a resident who abandons legal residence in North Carolina; and (c) in the case of a non-resident student at the time of enrollment who has established legal residence in North Carolina and has maintained that status for the preceding twelve months. PLEASE NOTE: Students previously classified as non-residents who feel they now meet the residence requirements must contact Registration Services for approval and for completion of the proper change of residence form.

4. A person holding a student F-1 visa cannot be classified as a resident for tuition purposes.

5. Foreign nationals holding an Alien Registration Card (Form I-551) and other foreign non-immigrants holding work permits (Visas A, G, I, K, N, TN) may be eligible for in-state tuition. They must also provide documenting evidence that they have lived in North Carolina for at least 12 consecutive months.

6. Ownership of property in or payment of taxes to the State of North Carolina will not, in itself, qualify a person for the in-state tuition.

7. Any students or prospective students who have reason to believe they have been classified incorrectly for tuition purposes must bear the responsibility for securing a ruling by stating the case in writing to the Director of Admission and Registration. Written request for a ruling shall be reviewed by the Director of Admission and Registration, who may contact the student to secure additional information. Upon receipt of this ruling, the student may appeal to the College Appeals Committee by making written request. A final residentiary decision by the College may be appealed to the State Residence Committee.

Student Financial Aid

The mission of Central Piedmont Community College's Financial Aid/VA Office is to provide quality assistance to all students and to make every effort to insure that the students who desire to attend the College, but cannot afford to do so, are provided financial aid assistance to complete their educational goals. The Financial Aid Office staff at Central Piedmont Community College is committed to providing quality service to students, the College and the community.

How to Apply

New Applicants: You can apply for federal aid by completing the Free Application for Federal Student Aid (FAFSA) and mailing it to the federal processor. A student should allow four to six weeks for processing.

The financial aid award year runs from July 1st to June 30th. Applications for the upcoming school year are available in the Financial Aid Office after January 15th. Students must complete an application for financial aid each year.

You can also apply through the Internet by using FAFSA on

the Web: http://www.fafsa.ed.gov.

If you do not have web access, you can use the computers in Central Piedmont Community College's libraries to complete and transmit your application. *Remember:* When using the Internet, you must print and mail a signature page before your application can be processed.

Please include Central Piedmont Community College's Title IV Code #002915 and address on the FAFSA. The number to call concerning application status, requesting a duplicate student aid report, or adding another college is 1-800-4FED-AID.

To receive priority for all types of aid, students should complete the application process by June 1st if planning to begin in the Fall Semester.

A Student Aid Report (SAR) will be mailed within four to six weeks from the time the FAFSA is submitted. Applicants should review the SAR carefully and make all corrections. If no corrections are necessary, the SAR should be retained and financial aid will be awarded based on this information. The Financial Aid Office will receive the student's record electronically from the federal processor.

Verification: The Financial Aid Office must verify files for applicants selected for verification by the Department of Education. (Central Piedmont Community College's Financial Aid Office will verify at least 30 percent of the student files selected by the U. S. Department of Education). When corrections are made to the student aid report, the application could then be selected for verification by the federal processor, even though it was not previously chosen. In addition, the Financial Aid Office reserves the right to request verification of additional files with questionable or conflicting information. Students must provide copies of student and/or parent and spouse federal tax returns, Verification Worksheets (obtained from the Financial Aid Office) and any other documentation requested before awards can be final.

Special Circumstances: If the student and/or family have unusual or extenuating circumstances that are not reflected on the Free Application for Federal Student Aid (FAFSA), please contact the Financial Aid Office. These circumstances could include a family's unusual medical or dental expenses or tuition expenses for children attending private elementary or secondary school. Also, an adjustment may be made if the student, spouse, or either parent (if applicable) has been recently unemployed, deceased, divorced or separated. Documentation will be required.

Renewal FAFSA: If a student filed a FAFSA or Renewal FAFSA for the previous year, the federal processor will mail an electronic pin number to the student. The student can use the electronic pin number to file electronically on the Renewal FAFSA.

Many of the questions on the Renewal FAFSA will have preprinted information based on the student's SAR from the previous year. Corrections must be made to the preprinted information if the information has changed, the income information updated, and the application submitted electronically to the federal processor. *Remember:* You must mail a signature page before your renewal application can be processed.

Electronic Pin Numbers

Anybody for whom a PIN number has not already been generated can now have one created by supplying basic identifying information. Once created, the PIN, when used by along with the applicant's identifying data, allows access to that applicant's data in several SFA systems and may also serve as that person's signature. The most notable application of this new process is to allow parents to receive a PIN and use it to electronically sign and submit their student's FAFSA/Renewal/Correction on the Web forms electronically.

How do you apply for a PIN?

Anyone interested in obtaining a PIN need only go to www.pin.ed.gov and choose Apply for a PIN. From there the student will need to supply their name, social security number, date of birth, and mailing address, and submit the request. When the submission has been completed a confirmation number will appear on the screen letting them know that their information was transmitted successfully.

Once the data has been successfully submitted, the Central Processing System will confirm the identifying information with the Social Security Administration database. After a successful match a PIN will be generated and a PIN number will be mailed to you by the Central Processor.

If you have any questions about this option, please contact FAFSA on the Web Customer Service group at 800-801-0576.

Transfer Students/Financial Aid Transcripts

Students transferring to Central Piedmont Community College must request a duplicate Student Aid Report (SAR) if the results of the FAFSA have not been released to the College.

To request a duplicate SAR call 1-800-4-FED-AID.

It is the student's responsibility to notify the Financial Aid Office if he/she has attended a post-secondary school and to have a financial aid transcript (FAT) requested, regardless of whether or not financial assistance was received at the school.

A student cannot receive financial aid at two colleges during the same semester.

ELIGIBILITY REQUIREMENTS

To receive Federal Title IV assistance and state assistance, students must do the following:

- demonstrate financial need (except for the alternative loan program);
- have a high school diploma or a General Education Development (GED) certificate on file with the College;
- be enrolled in an eligible program of study that has at least 16 credits;
- be a U.S. citizen or an eligible non-citizen;
- have a valid Social Security number;
- make satisfactory academic progress;
- sign a statement on the FAFSA certifying that you will use federal student aid for educational purposes only;
- sign a statement on the FAFSA certifying that you are not in default on a federal student loan and that you do not owe money back on a federal student grant;
- register with Selective Service, if required.

Financial Aid Programs

Federal Pell Grants

The Federal Pell Grant, which does not have to be repaid, is a federal program designed to provide financial assistance to undergraduate students who demonstrate a need for financial assistance to attend college. The U.S. Department of Education uses a standard formula, established by Congress, to evaluate the information reported on the Free Application for Federal Student Aid (FAFSA). The formula produces an Expected Family Contribution (EFC) number. The Student Aid Report contains the EFC number which determines eligibility.

The Federal Pell Grant award amount depends on the student's EFC, the student's cost of attendance, whether the student is full-time or part-time, and whether the student attends school

for a full academic year or less. Students must be enrolled in an eligible program consisting of at least 16 semester hours. Students with bachelor's degrees are not eligible.

Federal Supplemental Educational Opportunity Grant

A Federal Supplemental Educational Opportunity Grant (FSEOG), which does not have to be repaid, is for undergraduates with exceptional financial need – that is, students with the lowest Expected Family Contributions (EFC's) – and gives priority to students who receive Federal Pell Grants, do not receive assistance from other sponsors and who apply the earliest in the year.

The Federal Supplemental Educational Opportunity Grant program is a campus-based program administered directly by the Financial Aid Office. The amount of aid awarded depends on the student's financial need, on the amount of other aid the student receives, and on the availability of funds. Students with bachelor's degrees are not eligible.

Federal Work-Study

The Federal Work-Study program utilizes federal funds to provide part-time employment for undergraduate and graduate students with financial need to help meet their educational expenses. Students with bachelor's degrees are eligible. Students who are enrolled at least half-time may work an average of 15 to 20 hours per week. FWS employment is determined by the student's total financial need, the student's class schedule, and the student's academic progress.

Awarded FWS funds are limited to availability of positions, funds, and completion of the interview process. There are no term limitations on earnings, provided annual limits on the student's award letter are not exceeded.

Students are paid on the 15th of each month, and the amount paid is according to the position and the number of hours worked.

America Reads/America Counts

In 1997, President Clinton launched the America Reads Challenge to ensure that children learn to read on their grade level by the third grade. This work-study financial aid program provides students with employment to help meet their financial needs. The student gains work experience as reading tutors involved in service activities that play key roles in working with individual children and supporting classroom activities.

Effective July 1, 1999, work-study students also became eligible to tutor children (elementary age through ninth grade) in mathematics as part of the America Counts Challenge. This new initiative enables college students who have an affinity for mathematics and science to gain valuable work experience as tutors while taking an active role in improving student achievement in mathematics.

Scholarships

Scholarships are provided through the Central Piedmont Community College's Foundation and the generosity of industries, businesses, professional organizations, civic clubs, and individuals. A scholarship review process determines the recipient for those scholarships awarded by the College.

The scholarship program consists of two types of awards: merit-based scholarships and need-based scholarships. Scholarships are also awarded on a competitive basis applying the following criteria: academic excellence, achievement, leadership qualities, need or other criteria as stipulated by the donor.

Awards are usually restricted to tuition assistance and require the recipient to maintain a minimum grade point average to continue the scholarship. Each scholarship is awarded for one academic year beginning with the fall semester. Students must reapply each year.

Applications will be accepted until all funds are awarded. Students are encouraged to apply early. Screening of applicants will begin in late April. Contact the Financial Aid Office for applications, deadline dates, and a detailed listing of scholarships.

Donors of scholarships should direct contributions to the CPCC Foundation, Incorporated, which supports and supplements educational programs, projects, and scholarships at CPCC for which funds from other sources are unavailable or inadequate. Questions regarding the establishment of scholarships and requests for other scholarship donor-related information should be directed to the CPCC Foundation at (704) 330-6869. The CPCC Foundation is a 501(c)(3) organization eligible to receive tax-deductible contributions.

FOUNDATION

State Programs

College Foundation of North Carolina, Inc.

Whether you're interested in general information on college costs and requirements, or specific information on scholarships, or a tax-advantaged savings program, this is the place to start: http://www.cfnc.org.

North Carolina Student Incentive Grant (NCSIG)

The North Carolina State Education Assistance Authority, through College Foundation, Inc., makes award determinations for the North Carolina Student Incentive Grant (NCSIG).

To be eligible a student must:

- be a U. S. citizen;
- be a North Carolina resident;
- be enrolled or accepted for enrollment on a full-time basis at a North Carolina postsecondary institution;
- not be enrolled in a program designed primarily for career preparation in a religious vocation;
- maintain satisfactory academic progress;
- demonstrate 'substantial' financial need.

Awards start at $100 per year and are higher depending on the student's financial need. The average NCSIG award is approximately $370.

To apply a student must:

- complete and file the Free Application for Federal Student Aid (FAFSA);
- mark 'yes' on the form, giving the U. S. Department of Education permission to send the financial information to the College Foundation, Inc.;
- list at least one North Carolina college, university, technical or vocational school in the release section of the form.

The deadline for applying is March 15th prior to the beginning of the new award year.

North Carolina Community College Grant

The North Carolina Community College Grant is a need based grant established by the North Carolina Legislature. The North Carolina State Education Assistance Authority, through College Foundation, Inc., makes award determinations.

The North Carolina Community College Grant provides funds to help meet the educational costs of North Carolina residents attending community colleges.

To be eligible a student must:

- be a North Carolina resident;
- be enrolled at least half-time (six credit hours);
- be enrolled in an eligible curriculum program;
- be meeting the Satisfactory Academic Progress requirements and the Federal Pell eligibility requirements except for the EFC requirement established by the federal government.

To apply a student must:

- complete the Free Application for Federal Student Aid (FAFSA) by the date published on the FAFSA and list a North Carolina Community College as one of the top three choices of institutions.

Loans

CPCC's Financial Aid Office **does not** participate in the federal loan program; however, it does offer the following alternative loans:

SLM Loan

If a student does not qualify for Federal or institutional financial aid, they may still qualify for an alternative loan through SLM Financial Corporation, a SallieMae company. For an application or more information: (1) phone toll free at 1-877-834-9851; (2) visit their web site at www.salliemae.com/career loans; (3) come by the Financial Aid Office to pick up the brochure and application. The cost of this loan depends on your credit rating. Interest rates are prime + 1% to 4% and fees are 1% to 4%, depending on your credit. If your credit rating is not good, you can still qualify with a creditworthy co-borrower. Once you make 24 on time payments, you can apply to release your co-borrower. You may take up to 15 years to repay. In addition, while in school you may choose to lower your payments by making interest-only payments.

Key Alternative Loan

Key Educational Resources realizes that paying for higher education is a significant financial commitment. To help families manage costs, Key has created the Key Alternative Loan for at least half-time to full-time undergraduates. In many cases, a credit-worthy cosigner may be required for undergraduates. A student may borrow up to the cost of education less financial aid up to the aggregate amount. The minimum loan amount is $500. The interest rate is 2.9% plus the 3 month London Inter-bank Offered Rate. Currently the rate is 9.42%. A 4% origination fee is charged students who have a co-signer and it is 9% without a co-signer. No payments are required while the student is enrolled at least half-time and during the six-month grace period. Interest capitalizes once at the time of repayment. Payments also begin six months after the borrower is no longer enrolled at least half-time.

To apply: 1-(800)-683-7890 or http://www.key.com/educate/aternative. You will also need to pick up and sign a paper application located in the Financial Aid Office.

Awards

In order to provide adequate time for processing and awarding financial aid to students prior to class starting, priority dates are identified for each semester. If you submit your financial aid application after the established priority dates, be prepared to pay for tuition, fees, and books. Your award notification will be mailed in approximately two weeks once your file is complete.

Priority Dates

Fall Semester – June 1st
Spring Semester – October 15th
Summer Semester – March 1st

Students must have their financial aid package completed before registration. Late applicants must come prepared to meet all their expenses and pay tuition/fees within five days following registration. The Financial Aid Office reserves the right to adjust a financial aid package when an over-award is made. Students must notify the Financial Aid Office if any additional gift aid assistance is received for educational expenses. Furthermore, the Financial Aid Office will void any award if it is determined that the student provided incorrect or false information on the financial aid application. All financial aid awards are subject to change if the information on which they were based changes, federal regulations require a change, or an over-award occurs.

Central Piedmont Community College's Financial Aid Office adjusts student awards throughout the add/drop period. After the add/drop period, no awards are adjusted unless a "never attended" or a "complete withdrawal" is received from the instructor.

A student is paid for only those courses required for graduation or as a prerequisite for courses required in their program. The award letter is based on full-time enrollment for an entire year. Full-time status consists of enrollment in a minimum of 12 credit hours. Three-quarter time status consists of enrollment in 9 to 11 credit hours. Half-time status consists of enrollment in 6 to 8 credit hours. Less than half-time status consists of enrollment in 1 to 5 credit hours. Any changes in enrollment status must be reported to the Financial Aid Office.

Awards will be divided into two payments: fall and spring. Students who were enrolled less than full-time during the fall or spring may have Federal Pell eligibility for the summer term. ***For example:*** A student is awarded a full Federal Pell Grant award of $3,300. The student attends full-time in the fall and receives a Federal Pell Grant award of $1,650. The student attends half-time in the spring term and receives a Federal Pell Grant award of $825. The student will have $825 maximum Federal Pell remaining (according to enrollment status) for the summer term.

Financial aid awards cannot be automatically transferred from one college to another. Students must have the results of the FAFSA released to the new college. All documents in the student's financial aid file are the property of Central Piedmont Community College and cannot be released. In addition, financial aid cannot be utilized simultaneously at two or more colleges.

Instructional Programs/Courses Ineligible for Financial Aid

Diploma or certificate programs containing less than sixteen (16) semester hours are not eligible for Federal student aid. Although the Financial Aid Office will make every effort to monitor these programs, it is the responsibility of the student to assure acceptance into a program of at least sixteen (16) semester hours in order to be eligible for federal aid. In addition, Career Development, Continuing Education, course for which credit by examination has been received and/or courses being audited by the student are ineligible for financial aid. For a list of ineligible programs a student can contact their academic counselor or see 'Student Financial Aid Information' booklet.

Clock Hour/Credit Hour Conversions

The determination of enrollment status (full, $^3/_4$, $^1/_2$, or less) is, by Federal regulations, different for the following seven pro-

grams of study:

- Dental Assisting (D45240)
- Machine Technology (D50300)
- Cytotechnology (C45220)
- Autobody Repair (D60100)
- Mechnical Drafting Technology (D50340)
- Electrical/Electronics Technology (D35220)
- Autobody Repair Certificate/Specialization in Autobody Repair (60100-C2)

This determination of enrollment status is different because the programs have one or more courses that cannot be used toward a two-year degree program. Enrollment status determination for the above programs involve totaling for each course the clock/contact hours a student takes each semester. The total hours are then divided by 30 to obtain the converted credits. The converted credits are then used to determine the enrollment status.

Less Than Half-time Attendance

Federal regulations require a less than half-time budget calculation that is restricted to tuition, books, and transportation for students who are enrolled less than half-time. If a less-than-half-time enrollment status is a result of dropped or never attended classes, Federal Pell will be reduced and an over-award could occur. It is the responsibility of the student to satisfy any balance before receiving additional federal aid.

Standards for Financial Aid Progress

Recipients of Title IV aid are required to meet the College's standards of academic progress as defined in Central Piedmont Community College's Catalog and Handbook.

Title IV recipients must also complete a minimum of credit hours attempted each term and **MUST** be in an eligible program. **IMPORTANT:** To avoid penalties, students should notify the Financial Aid Office before adding or dropping any class (es).

The student is required to maintain a financial aid semester GPA of 2.0 (C Average) by mid-point of the program. Students will be reviewed for satisfactory progress at the end of each semester to determine if they are maintaining grade point requirements set forth by this policy. Grades A, B, C, D, and F will be counted in the Financial Aid GPA calculation. " 'W' Withdrawals," " 'I' Incompletes" and classes reported as " 'N' Never Attended" carry no point value but **are** computed as part of the Financial Aid GPA.

During any semester in which the student is awarded Title IV funds and then decides to audit, receives credit by examination or receives a withdrawal, the student may be liable for those funds.

In order to receive Title IV funds, students must be enrolled in courses that are required for their program. Courses taken that are not part of a student's program, **will not** be paid for with financial aid. For a two-year program, financial aid recipients may receive a maximum of six cumulative semesters of full-time study (equivalent to three years). For a one-year program of full-time study, a student may receive three full-time semesters of financial aid. For a one-semester program, a student may receive two full-time semesters of financial aid.

Progress is measured with the following standards:

Two-Year Degree Program Category:
0-12 hours attempted – The student must earn a 1.5 overall GPA.
13-25 hours attempted – The student must earn a 1.7 overall GPA.
26 and above hours attempted 2.0 overall GPA.

One-Year or Less Program Category:
0-12 hours attempted – The student must earn a 2.0 overall GPA.

First-Degree Waiver

Students wishing to apply for financial assistance, other than the Federal Pell Grant, after the completion of a post-secondary degree must request a first-degree waiver. Contact the Financial Aid Office for further details.

Developmental Studies

Students, accepted into and enrolled in eligible programs of study, may receive financial aid while taking required developmental studies. Such students are considered to be making satisfactory academic progress while taking up to 30 semester hours, or one year of developmental studies.

Length of Eligibility

Federal regulations require completion of a program of study within a 150% time frame. Central Piedmont Community College measures this time frame by credit hours. ***For example:*** a full-time student whose program consists of 4 semesters is required to have completed the program in no more than 6 semesters. All courses attempted, completed (all grades, including F, W. and I) and transferred will be assessed. (A change of program automatically results in a recalculation of the credit hours towards the 150% time frame.) Developmental hours are not included in the 150% calculation.

IT IS ALWAYS IN THE BEST INTEREST OF THE STUDENT TO CONTACT THE OFFICE OF FINANCIAL AID BEFORE CHANGING PROGRAMS.

Probation/Suspension

The minimum credit hour completion requirement and the academic standards are assessed at the end of each term. If a student does not make the minimum financial aid grade point average (GPA) or complete minimum number of credit hours required for his or her enrollment status during the term, the student is placed on probation for the next term attended. Financial aid may be received during this probationary term. Continued eligibility for aid is determined at the end of the probationary term.

Any student on probation who fails to make satisfactory progress during the probationary term is subject to suspension from financial aid for the next term he or she attends and will not be eligible for financial aid until satisfactory progress is demonstrated.

The College will notify the student of their status. However, it is the student's responsibility to track his/her progress and not totally rely on the school's notification.

Reestablishing Progress After Suspension

To reestablish progress a student must complete a term successfully without financial assistance (the student must assume all expenses). Satisfactory progress must be demonstrated by the end of the term before further aid can be awarded. Each student is notified in writing when placed on probation or suspension. The student allowed to return while suspended from financial aid eligibility **is not** automatically eligible for financial aid. If the student demonstrates satisfactory progress, financial assistance is reinstated at the beginning of the next term of attendance, if otherwise eligible. Whether approved by the Financial

Aid Appeals Committee or approved after one semester of satisfactory progress, the student's status upon reinstatement will be probation.

Appeals

A student may appeal the termination of financial aid by completing an appeal form obtained from the Financial Aid Office. The Financial Aid Appeals Committee determines if justifiable evidence or extenuating circumstances exists and if the student may receive financial aid for a specified probationary term. Satisfactory progress must be demonstrated by the end of the specified probationary term before further aid can be awarded. The Financial Aid Appeals Committee meets on the first Wednesday of each month at 1:00 p.m. The deadline to submit an appeal is ten working days prior to the date the Committee meets. This deadline is usually the second Friday preceding the Appeals Committee meeting. A student may make a personal appearance at the meeting by making an appointment in the Financial Aid Office.

Vocational Rehabilitation Financial Assistance

In order to qualify for Vocational Rehabilitation financial assistance, a student must have a mental or physical disability having a barrier to employment. There must also be a reasonable expectation that, as a result of vocational rehabilitation that, as a result of vocational rehabilitation services, the person will become gainfully employed. Each rehabilitation program is designed individually for and with the student.

The amount of the award is based on need and the type of program in which the student is enrolled. It generally pays for tuition and fees; for full or partial books and supplies; and, in some cases, for supportive services such as interpreter services, attendant services, and transportation.

Students should contact the Vocational Rehabilitation Office nearest their home or the North Carolina Division of Vocational Rehabilitation Services, P. O. Box 26053, 805 Ruggles Drive, Raleigh, North Carolina 27611-6053 or call (919) 733-3364.

Veteran Affairs

Central Piedmont Community College is approved by the North Carolina State Approving Agency for the enrollment of persons eligible for education assistance benefits from the U.S. Department of Veteran Affairs. The College provides training opportunities at both college and secondary levels for veterans, eligible dependents (spouse and/or children) of service-connected or deceased veterans or 100% service-connected disabled veterans, those missing in action, and prisoners of war.

For additional information regarding these benefits, which are administered by the United States Department of Veterans Affairs, contact one of the following offices:

- County Veterans Service Office
- District Office of the North Carolina Division of Veteran Affairs
- Central Piedmont's Office of Veterans Affairs

In addition, VA inquiries may be made at 1-888-442-4551 or http://www.va.gov/education.

To contact Central Piedmont Community College's Veterans Affairs Office call: (704) 330-6267.

For further information:

- GI Bill web site: http://www.gibill.va.gov/
- Department of Veterans Affairs web site: http://www.va.gov
- Veterans' Benefits Administration web site: http://www.vba.va.gov

Sites to request official military transcripts:

- **Army:** Click on DA Form 5454 http://www-leav.army.mil/AARTS/INDEX.HTM
- **USAF:** Click on pubs & resources http://www.au.af.mil/au/ccaf/
- **Navy/Marine** http://www.navycollege.navy.mil

Veterans Educational Benefits

Chapter 30, Montgomery GI Bill, Active Duty

Persons who first entered active duty after June 30, 1985, are generally eligible. Some Vietnam Era veterans and certain veterans separated under special programs are also eligible. The Veteran must have received an honorable discharge. The MGIB program provides up to 36 months of education benefits. This benefit may be used for degree and certificate programs. Remedial, deficiency, and refresher courses may be approved under certain circumstances. Generally, benefits are payable for 10 years following release from active duty.

Converters: Chapter 34/30, Vietnam Era GI Bill: Must have remaining entitlement on December 31, 1989, and served on active duty from October 19, 1984 through June 30, 1988.

Chapter 1606, Educational Assistance for Members of the Selected Reserve

This program is for members of the National Guard or Selected Reserves, since July 1, 1985. Members must be serving a six-year enlistment or re-enlistment to qualify. For more information, contact the respective National Guard or Selective Reserve Command to receive a Notice of Basic Eligibility.

Veterans may be entitled to receive up to 36 months of education benefits. Benefit entitlement ends 10 years from the date of the veteran's eligibility for the program, or on the day the veteran leaves the Selected Reserve.

Tuition assistance, awarded by the respective branch of service, may be available to members of the National Guard or Active Duty Personnel. Eligibility requirements are available at the member's unit command or from the CPCC Sponsor's Desk.

Chapter 31, Training and Rehabilitation for Veterans with Service-Connected Disabilities

The Vocational Rehabilitation and Employment (VR&E) program is the element within the VA which assists veterans with service-related injuries to achieve suitable employment or enhance their ability to function independently at home and in the community.

Veterans are entitled to vocational rehabilitation services and benefits if they meet all of the following conditions:

- a combined 20 percent VA compensable disability rating as a result of active service on or after September 16, 1940;
- the veteran will receive or received a discharge or release from active duty under other than dishonorable conditions;
- the veteran needs rehabilitation services because of an employment handicap;
- the veteran's period of eligibility has not expired.

Note: Veterans may also be entitled if they have a 10 percent

disability rating and either (1) VA finds that this disability causes serious employment and personal problems; or (2) the veteran first applied for vocational rehabilitation before November 1, 1990, is now reapplying for the benefit, and VA finds the veteran has difficulty getting and keeping a suitable job.

For further information contact: Vocational Rehabilitation, VA Regional Office, 251 North Main Street, Winston-Salem, NC 27155, Telephone: (336) 631-5200.

Chapter 32, Post-Vietnam Era Veterans' Educational Assistance Program

Eligible individuals are those who served on active duty and contributed up to $2,700. Individuals who are currently on active duty may make lump-sum contributions before their discharge or release up to $2,700.

Benefit entitlement is 1 to 36 months depending on the number of monthly contributions. The veteran has 10 years from release from active duty to use VEAP benefits. If there is entitlement not used after the 10-year period, the portion remaining in the fund will be automatically refunded.

To qualify, the veteran must meet the following requirements:

- entered service for the first time between January 1, 1977, and June 30, 1985;
- opened a contribution account before April 1, 1987;
- voluntarily contributed from $25 to $2700;
- completed the first period of service; and were discharged or released from service under conditions other than dishonorable.

Chapter 35, Survivors' and Dependents' Educational Assistance

You must be the son, daughter, or spouse of:

- a veteran who died or is permanently and totally disabled as the result of a service-connected disability. The disability must arise out of active service in the Armed Forces.
- a veteran who died from any cause while such service-connected disability was in existence.
- a service member missing in action or captured in line of duty by a hostile force.
- a service member forcibly detained or interned in line of duty by a foreign government or power.

Period of Eligibility

- A son or daughter who wishes to receive benefits for attending school or job training, must be between the ages of 18 and 26 (except in certain instances). Marriage is not a bar to this benefit. This benefit may not receive while on active duty. To pursue training after military service, discharge must not be under dishonorable conditions. VA can extend the period of eligibility by the time spent on active duty. This extension cannot go beyond the 31st birthday.
- For a spouse, benefits end 10 years from the date VA declares eligibility or from the date of death of the veteran.

Satisfactory Academic Progress

Educational assistance benefits to veterans and eligible persons will be discontinued once the student ceases to make satisfactory progress toward completion of his/her training. Veterans and eligible persons follow the same academic progress that applies to all students attending the College. These standards are described in the College *Policies and Procedures* section of this catalog.

Veterans and other eligible persons are required to seek academic assistance by contacting their instructor, counselor, advisor, or the CPCC's Office of Veterans Affairs before academic difficulties place them on 'Academic Intervention' or 'Academic Suspension'.

Change of Address, Enrollment Status, Change of Program or Graduation

Students receiving veteran benefits should contact Central Piedmont Community College's Veterans Affairs Office and complete a Change of Address and/or a Change of Program form. Students may also call the VA Regional Processing Office at 1-888-442-4551 to report a change of address.

Veterans and other eligible persons are responsible for and required to notify CPCC's Veterans Affairs Office immediately of any pending or approved program changes, withdrawals, course substitutions and/or waivers, or graduation. Veterans are responsible to repay the US Department of Veterans Affairs for any overpayments.

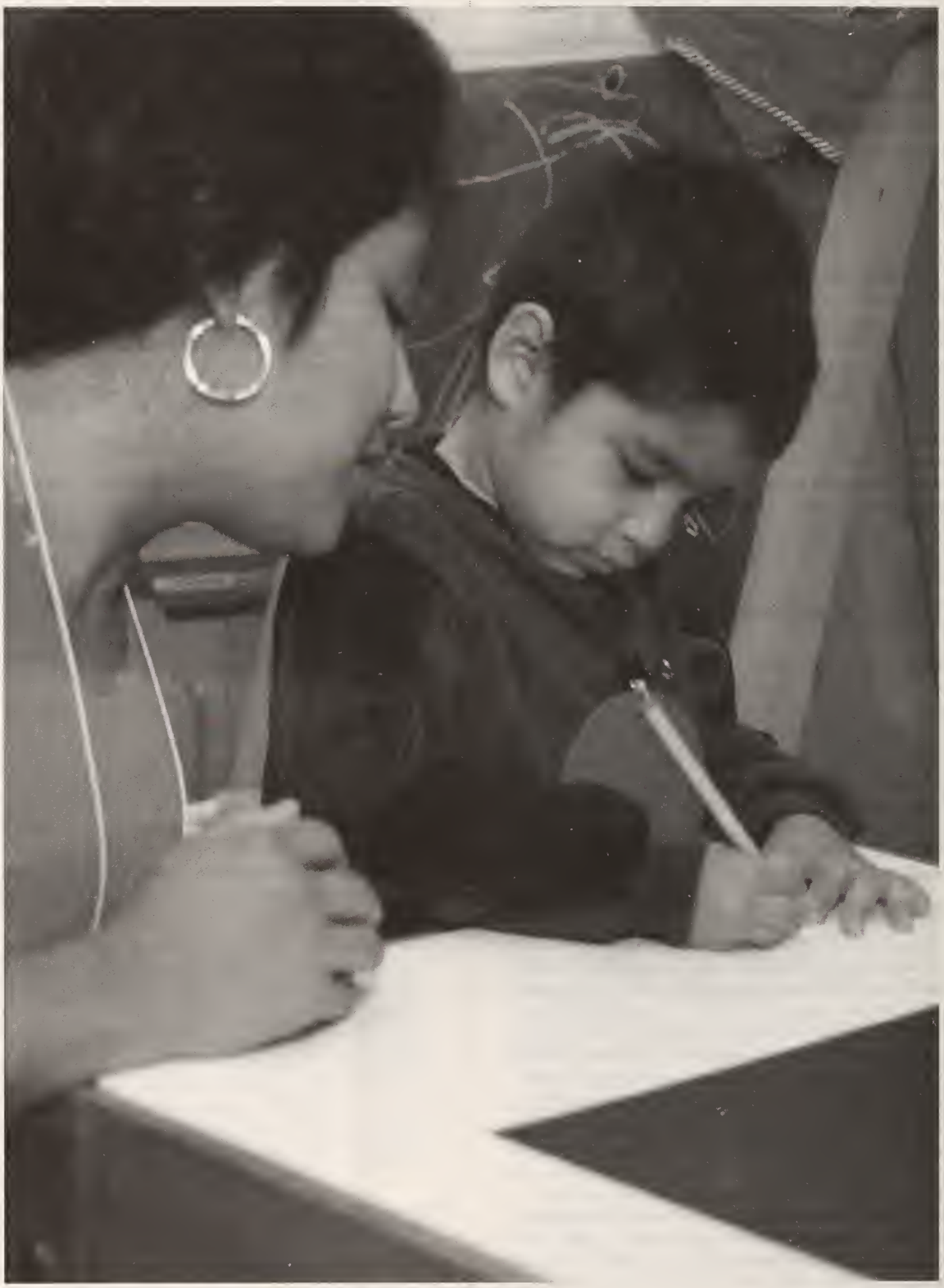
Forms

Veterans Affairs applications and forms can be obtain in Central Piedmont Community College's Veterans Affairs Office or found at: http://www.vba.va.gov/pubs/forms1.htm.

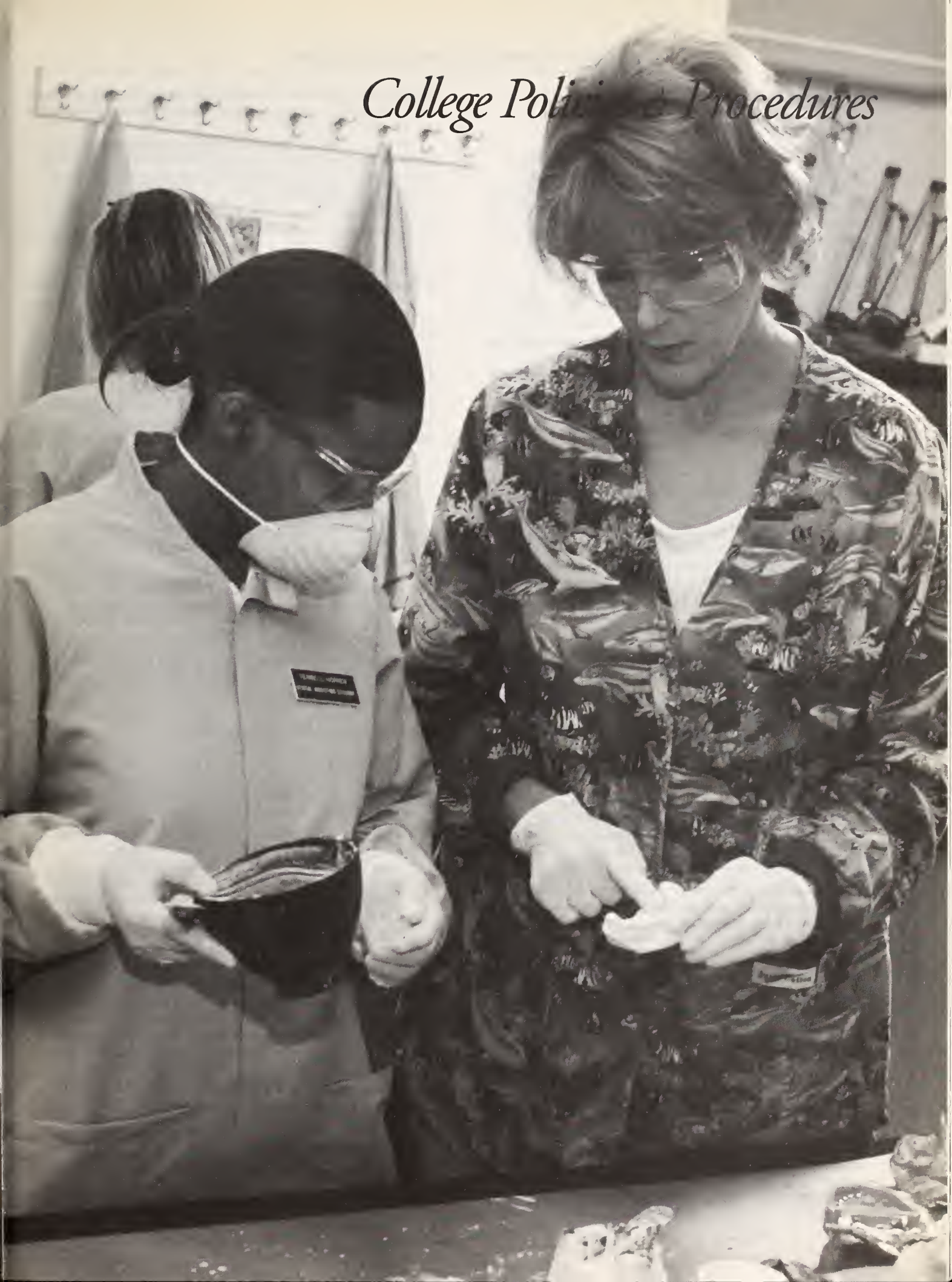
The Following Cannot Be Certified For VA Benefits:

- courses not leading to an educational, professional, or vocational objective (i.e. continuing education courses);
- courses previously completed successfully;
- courses taken while not admitted to a diploma, certificate or degree program;
- self-improvement courses;
- recreational programs;
- audited courses;
- courses for which credit by examination have been received;
- any course not approved by the State Approving Agency.

All policies are subject to change based on institutional and federal guidelines.



College Policies & Procedures



Policies and Procedures

Academic Honors

Graduation Ceremony Honors

Graduation with honors designation (wearing cords at graduation ceremony) will be determined by program GPA. If a student simultaneously graduates from two or more programs with an honors level GPA in one program and not in the other, the student will graduate with honors.

President's List

To honor students for outstanding academic achievement, the College publishes a President's List at the end of each term, recognizing students enrolled in curriculum programs who meet the following requirements:

- In a given term, have completed at least 12 hours of credit in courses numbered 100 through 299 and
- In a given term, have achieved a 4.00 grade point average with no I's or W's.

Deans' List

To honor students for outstanding academic achievement, the college publishes a Deans' List at the end of each term, recognizing students enrolled in curriculum programs who meet the following requirements:

- In a given term, have completed at least 12 hours of credit in courses numbered 100 through 299 and
- In a given term, have achieved a 3.50 or higher grade point average with no I's or W's.

Attendance

Absences seriously disrupt a student's orderly progress in a course, and often a close correlation exists between the number of absences and the final grade. Although an occasional absence might be unavoidable, the absence does not excuse a student from meeting the requirements of the missed class. The student is responsible for preparing all assignments for the next class and for completing work missed. Instructors are responsible for establishing appropriate course attendance requirements and for informing students of those requirements on course syllabi distributed at the beginning of the academic term.

A student who for any reason cannot complete a credit course may officially withdraw prior to the last 25% of the academic term and receive a withdrawal "W" grade. Exceptions to the deadline will be made in hardship cases with the approval of the group dean. A "W" will remain on the transcript. A "W" will not count as credit hours attempted.

A student with a pin number may withdraw by dailing CHRIS (Computer Handled Registration Information System) 330-6970; or by contacting registration personnel on any CPCC campus by telephone or in person; or through @CPCC found on the College's homepage at www.cpcc.cc.nc.us.

Auditing Courses

Students who wish to audit a course must complete an Audit Agreement form, get the course instructor's signature, and submit the Audit Agreement to the Registration Center by the 30% date of the class. Registration procedures and fees for an audited class are the same as those for regular and non-credit enrollment. Certain courses, however, may be designated as inappropriate for audit. Non-credit courses may not be audited without permission from the Dean of Corporate and Continuing Education. No student will be allowed to change from an audit to a credit designation or from a credit to an audit designation after the 30% date of the class.

The hours of an audited course will be counted as part of a student's load and will be subject to overload restrictions. A student may audit a course only once, and all those doing so must adhere to the instructor's classroom policies. A record of the audit will be entered on the student's transcript as AUD. The AUD carries no college credit and will not be converted to a letter grade.

Changing Grades

The instructor of record is the individual authorized and responsible for personally changing grades for his/her students. In an instructor's absence, the department head may change a grade for that instructor after consulting with him/her. In circumstances when the instructor cannot be located for an extended period of time and valid reasons exist for changing the grade, the division director is authorized to make the appropriate change. The procedures below are to be followed when a grade change is appropriate:

1. The instructor (or division director) will go personally to the Student Records Office to change the grade. She/he will present identification (CPCC ID or driver's license) to the Records Clerk.
2. The instructor (or division director) will personally complete and sign a form.
3. Using the signed change document, the Director of Admissions Registration and Records or a designee will personally change the grade on the original roster and initial and date the change.
4. The Director of Admissions Registration and Records or his designee will then change the grade on the student's computerized record and mail the student a copy of the revised transcript.

Course Load Regulation

Students registered for at least 12 hours of credit during the fall and spring terms and for at least 9 hours of credit during the summer term are considered full time students. Students are advised that overload status may be required as a result of the following conditions and require permission:

1. Registrations that exceed 18 course hours during the fall and spring terms and over 13 hours during the summer;
2. Overlapping course hours exceeding 18 hours during fall and spring terms and overlapping course hours exceeding 13 hours during the summer term.

Overlapping courses are defined as those which have start and end dates within the standard term (16-week or 10-week). During the fall and spring terms, any overlapping courses totaling more than 18 hours are overload and require permission. Overlapping courses over 13 hours during summer term are overload and require permission. Students must identify the overload course(s) and then secure approval from the faculty advisor, or the appropriate program or discipline chair, division director, campus evening director, or instructional dean.

All students seeking overload approval for 19-20 hours overlapping course hours during fall and spring terms and for 14-15 overlapping course hours during the summer term must secure approval from the faculty advisor, program or discipline chair, division director, campus evening director, or appropriate instructional dean.

All students seeking overload approval for 21 or more overlapping course hours during fall and spring terms and for 16 or

more overlapping course hours during summer term must secure approval from the appropriate instructional dean.

Course Substitution

Course substitutions are permitted with the approval of the division director.

Course Waiver

Course waivers are permitted upon approval of the division director. No credit hours will be granted for courses that are waived.

College - Level Examination Program (CLEP)

Central Piedmont Community College is a national test center for administering CLEP exams. CPCC students as well as the general public may take CLEP exams at the Central Campus Testing Center, Garinger Hall, room 248. Advance registration is required. CPCC students who perform satisfactorily on the exam will receive a grade of X. The X grade carries no quality points, but credit hours will be awarded identical to the number normally assigned to that course at CPCC. The appropriate department will determine the amount of credit awarded within a specific program. For a complete copy of the College's CLEP policy, or for an application, please contact the Testing Center. (704) 330-6886.

Credit By Examination

In order to receive credit by examination, a student must show convincing evidence of special aptitude or knowledge of the course material. A written, oral, and/or performance examination will be developed and administered by an instructor of the course. The examination is subject to the approval of the division director. If the student performs satisfactorily on the examination, a grade of X will be recorded. The X grade carries no quality points, but credit hours will be given identical to the number normally assigned credit hours to that course at Central Piedmont Community College. Except for a very few classes, a student does not have to be registered for the class he or she is seeking credit by examination; however the student does have to be a registered student at the time he or she applies for credit by examination.

Advanced Placement and International Baccalaureate Exams

Credit may be granted for Advanced Placement and International Baccalaureate Exams.

Grading Policy

Student Grade Point Average

Students are graded according to the following grade point system.

Grade	Point Value	Description
A	4	Excellent
B	3	Very Good
C	2	Satisfactory
D	1	Poor
F	0	Failing

The following grades will not be used in computing the grade point average:

AUD Audit
I Incomplete
S Satisfactory
U Unsatisfactory
W Withdrawal
X Credit by Examination

Student Grade Point Average

Students are graded according to the following grade point system.

Example:

MAT 175 4 credits, Grade A = 4 points, 4 X 4 =16
ENG113 3 credits, Grade D = 1 point, 3 X 1 = 3
SPA 111 3 credits, Grade B = 3 points, 3 X 3 = 9
SPA181 lab, 1 credit, Grade B = 3 points, 1 X 3 = 3
ACA 118 2 credits, Grade C = 2 points, 2 X 2 = 4
Total Credits: 13 Total Points: 35

Divide 35 points by 13 credits = 2.692 GPA (Grade Point Average)

Three GPA's will appear on the student's academic record: (1) cumulative GPA, (2) program GPA, (3) term GPA.

Grades earned under the quarter system will retain their same value in calculating the GPA. The computer will be programmed to convert the GPA from quarter hours to semester hours for students' combined GPA.

Semester Hour Credits:

- 16 contact hours classroom work equals 1 semester hour of credit.
- 32 or 48 contact hours of labortory work equals 1 semester hour of credit.
- 48 contact hours of clinical work equals 1 semester hour of credit.
- 160 contact hours of work experience equals 1 semester hour of credit.

Withdrawal

When a student determines that he/she will be unable to complete courses in which he/she is currently enrolled, it is the student's responsibility to initiate procedures leading to a formal withdrawal ("W") in order to avoid a failing ("F") grade. To receive a "W" grade a student must withdraw before the last 25% of the academic term. Final dates for withdrawing from a course will be announced in CPCC's Class Listing Schedule and Telephone Registration Information. The instructor may also assign "W" at other times when circumstances warrant such action. A "W" will remain on the transcript and will not count as credit hours attempted. To receive credit, a student who received a "W" must re-register and pay for the course in a subsequent term. Financial aid recipients need to refer to the financial aid satisfactory progress policy to determine if schedule adjustments will affect financial aid.

Incomplete

An "I" (Incomplete) may be assigned when a student has persisted through the course and has successfully completed at least 90% of the requirements for passing the course or when the instructor has determined extenuating circumstances exist. A student must resolve an "I" (Incomplete) grade within 6 months from the end of the term in which the grade was assigned, unless the time period is otherwise specified by the division. When an I grade has been resolved, the final grade will be recorded beside

the I (e.g., I/B) and the GPA will be recomputed. An I which is unresolved will be changed to the grade of I/F after One semester.

Excessive I's, F's and W's

A student will not be allowed to register for a course in which he or she has received three I's, F's, and/or W's until permission is received from the department that offers the course.

Repeated courses

Repeated courses will appear on the student's transcript. Each attempt will be shown, but the student's cumulative and program GPA's will be recomputed to count only the last completed attempt.

Standards of Academic Progress

Academic Intervention: Students who are enrolled in a program and whose program GPA falls below the following categories will be placed on academic intervention. Following the first drop in their program GPA, students are placed on First Intervention and will have to see their faculty advisors. If the program GPA does not improve by the end of the next semester, students are placed on Second Intervention. Students must again see their faculty advisors and will not be able to register until grades are posted. While on academic intervention, students will be limited to registering for the number of credit hours approved by their faculty advisors. Students on academic intervention may be required to register for Academic/Life Skills courses, developmental courses or other recommended courses.

2-Year Degree Program Category		
0-20	credit hours attempted	1.50 program GPA
21-40	credit hours attempted	1.75 program GPA
41-50	credit hours attempted	1.90 program GPA
51+	credit hours attempted	2.00 program GPA
1-Year Program Category		
0-10	credit hours attempted	1.50 program GPA
11-20	credit hours attempted	1.75 program GPA
21-30	credit hours attempted	1.90 program GPA
31+	credit hours attempted	2.00 program GPA

Students in certificate programs will be placed on academic intervention when their program GPA falls below 2.0.

Academic Suspension

Following a notice of Second Intervention, students who do not raise their program GPA to the required level within the next enrolled term will be placed on academic suspension. During the term of academic suspension, the student is referred for academic advisement to a program counselor. While on suspension from curriculum classes in the program, the student will be required to enroll in ACA 118 (College Study Skills), and may be allowed, on the approval of his or her program counselor, to enroll in one other course in which he or she can put into practice those skills acquired in ACA 118. If the student fails to make appropriate progress during this semester on academic suspension, he or she will be suspended from enrolling in any curricular classes at CPCC for one semester; however, during that semester the student has several options:

- Take developmental classes, ESL, or Career Development that can provide him or her with skills needed to improve class performance;
- Take Continuing Education classes;
- Take no classes.

Readmission from Suspension

Central Piedmont has an open door policy and does not permanently prohibit a student from taking classes at the college for academic reasons. However, according to the Grading Policy, when a student has performed below standards of progress for a specified period of time, he or she may be suspended from taking curriculum classes for one or more semesters.

When a student is suspended, his or her program counselor provides academic advisement, rather than a faculty advisor. When the student returns after the semester of Suspension, he or she continues to be advised by the rpogram counselor. If, at the end of the semester following suspension, the student's program GPA meets the Standards of Progress, he or she is returned to a faculty advisor in the program.

Students on Second Intervention or Suspension are not allowed to register until the current semester grades are posted to ensure the student is making satisfactory progress.

Graduation

Program requirements: The College reserves the option of changing the requirements for completing a degree, diploma, or certificate program at any time. With the change from quarter to semesters Fall 1997, quarter-based programs of study have been changed significantly. In some programs, a cross-walk establishes clearly the relationship between all old quarter courses and new semester courses. In other situations, courses were included in quarter-based programs that have disappeared as requirements in semester based programs, have been significantly changed, or have become a part of other courses. Additionally, some semester-based programs include totally new courses that did not exist in the quarter-based program. Therefore, students who were enrolled at CPCC prior to Summer Term 1997 must seek academic advice from program counselors, division directors, program chairs, or program faculty in order to move smoothly from the previous quarter-based program of study to the new semester-based program. The College is committed to providing excellent help as students manage the transition.

Returning students: When a student is not enrolled in program-related courses for three or more consecutive semesters, the requirements for program completion will be based on those requirements in effect when the student re-enrolls in the program, not on those in effect when the student originally entered the program.

Exceptions to course requirements and catalog year changes (beginning Fall 1997) can be made upon approval of the division director. Sometimes such exceptions must be made because courses in an earlier curriculum program may no longer be offered. Students will not be placed in a catalog year prior to the 1997-1998 year.

GPA: A student must have a program 2.0 GPA or better to receive a degree, diploma or a certificate. Some programs may require a grade of C or better.

C**redentials:** An official high school transcript or equivalent must be on file, showing the date of graduation prior to certification. **Note:** Students who have an associate or a higher degree from an accredited college or university are not required to have high school transcripts on file.

Residence: A student must meet the Curriculum Program Residency requirements of the college.

Application: Graduation application dates are specified in the CPCC course schedule for each term. Students must apply

within the dates specified. Graduation applications can be obtained at any of the campuses.

Processing of Degrees and Diplomas:

1. After receiving the graduation application, the certification staff will review all records of the student and mail the student a list of courses that must be completed prior to graduation, as well as a list of any incomplete documents.
2. After completing all the requirements, including successful completion of the final courses required for graduation, a notation of the degree or diploma or certificate and the date of graduation is entered on the student's CPCC transcript. The student's date of graduation will be the term (summer, fall, or spring), when all documents needed for graduation certification are on file in the student's folder.
3. Any graduate who would like a degree or diploma, suitable for framing as a memento, needs to fill out a Degree/Diploma Order Form in the Graduation Certification Office. This form is then presented to the Cashier's Office with payment of $12.50* order fee. (Students ordering after established deadlines will pay $15.00.*)

***Note:** This cost is subject to change without notice.

Program Help

Program information, including admission requirements, is available by calling Telephone Registration, CHRIS (Computer-Handled Registration/Information System) at (704) 330-6970. This service is available twenty-four hours a day, seven days a week. To find the telephone code for information about a specific program, consult the current CPCC class schedule.

Repeating Successfully Completed Courses

Curriculum Courses

With the exception of a very few DAN - and MUS - prefix courses that can be repeated more than two times to meet degree requirements, students must obtain departmental approval before enrolling in a course which they have already successfully completed twice. PED, CUL and HRM courses, however, may not be repeated after one successful completion.

Continuing Education Courses

Effective July 1, 1993, students who take an occupational extension course more than twice within a five-year period will be charged the full cost of the course.

Senior citizens who are (65 years & older) legal residents of North Carolina and who wish to enroll in an occupational extension course will not be required to pay for taking the course twice. Senior citizens who take an occupational extension course more than twice within a five-year period must pay for the cost of the course.

Students may repeat occupational extension courses more than once if the repetitions are required for certification, licensure, or recertification.

Self-supporting classes (Corporate and Continuing Education for example) may be repeated any number of times.

Student Academic Integrity Policy

The purpose of the CPCC Code of Student Academic Integrity (see CPCC Student Handbook) is to support the continued growth and development of a strong academic community based on the principles of academic honesty and integrity.

Although the commitment to maintaining and enforcing high standards of academic honesty and integrity at Central Piedmont rests with all members of the College community, faculty members, in particular, are charged with taking measures to preserve, transmit, and model those standards through example in their own academic pursuits and in the learning environment which they create for their students. Students, likewise, as members of the College's academic community, are obligated to take an active role in the preservation of the standards of academic honesty and integrity, encouraging others to respect those standards. It is the expectation of the College that students maintain absolute integrity and high standards of individual honor in their academic work. Conduct that violates the standards of academic honesty and integrity and is subject to disciplinary action may include, but is not limited to, cheating, fabrication and falsification, plagiarism, abuse of academic materials, installation of a computer virus, and complicity in academic dishonesty. Any student who violates the CPCC Code of Student Academic Integrity is subject to academic disciplinary action. Such action may include, but is not limited to, entry of the incident in the records of the Office of Student Development; reduced grades; and dismissal from College classes, programs, and activities.

Student Conduct

The College reserves the right to maintain a safe and orderly educational environment for students and staff. Therefore, when in the judgment of College officials, a student's conduct disrupts or threatens to disrupt the College community, appropriate disciplinary action will be taken to restore and protect the well being of the community.

Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and morality. The purpose of the Student Code of Conduct (complete policy and procedures in the Student Handbook) is not to restrict student rights but to protect the rights of individuals in their academic pursuits.

Students should note that the possession, consumption, or distribution of alcohol or illegal drugs, or possession of weapons on Campuses or any other CPCC instructional site is specifically prohibited and regulated by state statute. Violators will be prosecuted by the authorities.

Student Grievance Procedure

I. Definition

A grievance is a student allegation that a College action or decision is discriminatory or has a negative effect on the student's status at the College.

II. Regulation

Any student may request a review of any College decision or action alleged to be discriminatory or to have a negative effect on the student's status at Central Piedmont Community College. If the grievance concerns a course grade, then the student should follow the steps in section V.

III. Procedure

A. The student shall first informally discuss the matter in question with the College employee most directly involved unless the issue is a claim of discriminatory harassment (as defined in Section 4.31). In that case, the student may appeal

directly to the employee's immediate administrator.

B. If the student is unable to resolve the matter in question through discussion with the College employee directly involved, the student may file an appeal with the employee's immediate administrator. All such appeals shall be in writing and state the basic facts in the case.

C. If the matter is not resolved, the appeal may be processed through the employee's supervising administrators in succession until a satisfactory resolution is obtained or until the appeal reaches the President. The President's decision will be final.

D. A student may at any stage of the process consult with the Dean for Student Development to obtain advice regarding the grievance procedure.

IV. Timeliness

A grievance must be presented within 30 days after the action or decision being questioned. Processing at each step cannot exceed 30 working days; however, the time may be extended by agreement of both parties or by extenuating circumstances as decided by the administrator to whom the grievance is presented. If the administrator at each step does not meet processing time limitations, the grievant may then request higher administrative assistance in obtaining requested relief. If the grievant does not meet the stated time limitations, the process will be terminated and such grievance cannot be resubmitted.

V. Course Grade Appeals Procedure

A part of faculty responsibility at Central Piedmont Community College is the assignment of student course grades according to methods, which are professionally acceptable, communicated to everyone in the class, and applied to all students equally.

Any student who contests a course grade should attempt first to resolve the matter with the faculty member who assigned the grade. Failing to reach a satisfactory resolution, the student may appeal the course grade in accordance with the procedure outlined below. While a grade is being appealed, a student is obligated to abide by the written division policies concerning continuation in programs or continuation in courses with prerequisites.

A. The student must consult initially with the faculty member who assigned the course grade.

B. If the conference between the student and the faculty member does not resolve the matter, then the student must complete and submit the Grade Appeal Form to the head of the division where the course grade was awarded. This written appeal must be submitted within 30 working days and will become the document of record.

C. The division director will then confer with the student and the faculty member to seek resolution by mutual agreement. When appropriate, the program chair/coordinator in which the course grade was assigned will be involved in this conference.

D. Failing such resolution, the student may contact the appropriate instructional dean for an appointment. The dean will request all documentation, including the Student Grade Appeal Form from the division director prior to meeting with the student. Within 10 working days after receiving the documentation, the dean will confer with the student, faculty member, division director, and when appropriate, program chair/coordinator. Based on these discussions, the dean will either render a decision or convene the Grade Appeal Committee.

E. If the dean renders a decision, he/she will communicate that decision in writing to the student, the faculty member, the program chair/coordinator, and the division director. If the grade is to be changed, the dean will change the grade. The dean's decision will be final.

F. If the dean determines that further evaluation of the student's work is warranted, the dean will convene a Grade Appeal Committee. This committee will consist of the convening dean and three faculty members. The Faculty Senate will appoint one member. The student will select one member, and the instructor who assigned the contested grade will select one member. The faculty member who assigned the grade, the student, the division director, and when appropriate, the program chair/coordinator, will be present at the meeting. The student may bring one guest. The student and faculty member will be given an opportunity to address the committee and to answer questions. The student's guest, the division director and the program chair may not address the committee. The three faculty members will vote to affirm the grade or to change the grade. The committee's decision will be final. The dean will communicate the committee's decision in writing to the student, the division director, program chair, and the faculty member who assigned the grade. If the grade is to be changed, the dean will change the grade.

G. If the dean changes the grade, the college will assist the student in resuming studies at the College.

Student Records (Transcripts)

The College maintains the position that students' records are their own property; therefore, this information is released only when a student signs a Records Release Form in the Office of Student Records. Students may have copies of their transcripts sent to any institutions or individuals they choose through the Office of Admissions and Records. They may also order copies for their own use. A $3.00 fee is required for each official transcript requested. Transcripts are not released if the student owes money to the College.

Policies and Procedures

Central Piedmont Community College, in fulfilling its responsibilities to students, must maintain accurate and confidential student records. The College staff recognizes the rights of students to have access to their academic and personal records in accord with existing College policy and the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment).

Definition of Term "Educational Records"

These regulations, as defined under the provisions of the Family Educational Rights and Privacy Act of 1974, include files, documents, and other materials which contain information directly related to students and which are maintained by an educational institution or by an authority on behalf of the institution. The term educational record, under the provisions of the law, does not include the following:

1. Records of institutional, supervisory and administrative personnel which are in the sole possession of the maker and which are not accessible or revealed to any other person except a substitute for the above named personnel;
2. Records and documents of Security Officers of the institution which are kept apart from such educational records;
3. Records on students which are made or maintained by a physician, psychiatrist, psychologist, counselor, or other recognized professional or paraprofessional acting in their official capacity and which are made, maintained, or used

only in connection with a provision for treatment for the student and are not available to anyone other than the persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of a given student's choice;

4. Financial records of the parents of the students or other information therein contained;

5. Confidential recommendations if a given student has signed a waiver of the student's rights of access, provided such a waiver may not be required of the student;

6. Confidential letters or statements of recommendation which were placed in educational records prior to January 1, 1975, if such records or statements are not used for purposes other than those for which they were specifically intended; and

7. Medical records, physical examination results, reasonable accommodation request forms, or other medical information which are required to be kept apart from general educational records and treated as confidential in accordance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act.

Control Provisions on Student Records and Student Information

1. Transcripts and other information are released only with written permission of the student. When information other than the transcript is released from the student's official record (Office of Student Records), the student will receive a copy of the release.

2. Students have the right to inspect their own records whether recorded in hard copy form or recorded in the form of magnetic disks and microfilm. Upon inspection, students are entitled to an explanation of any information contained in their records.

3. The official student file will not be sent outside the Counseling Office, Records Office, Admissions Center, Financial Aid Office, Veteran and Military Affairs Office, or other custodial office except in circumstances specifically authorized by the Dean for Student Development. The authorization for such special circumstances must be in writing.

4. All medical records, physical examination results, reasonable accommodation request forms, or other medical information must be collected on separate forms, maintained in separate medical files kept apart from a student's general educational records, and treated as confidential.. Disclosure of such information may only be made at the express, written consent of the student to the following:
   a. Administrators, Department Heads and others involved in a request for reasonable accommodation or evaluation of qualifications for or performance in a course, program, service or activity;
   b. Department Heads and instructors for purposes of implementing and enforcing necessary restrictions and accommodations; and
   c. First aid and safety personnel if a known disability may require emergency treatment.

Release of Student's Educational Records to Educational Institutions, State and Federal Agencies

1. Such requests for confidential information shall not be honored without proper written consent by the student for the release of such records by the student except under conditions indicated in paragraphs 2 and 5 below.
   a. The written consent must specify the records or the specific data to be released, to whom they are to be released, and the reasons for release.
   b. Each request for consent must be specific, and each request must be handled separately.
2. Request for confidential information will be honored without prior consent of the student in connection with an emergency, if the knowledge of such information by appropriate persons is necessary (in view of a reasonable person) to protect the health or safety of the student or other persons. However, such a release shall have the approval of a Cabinet Officer unless it can be shown that, under the circumstances, time would not permit or that no Cabinet Officer was available.
3. The following "Directory Information" may be made available to the public by the College unless students notify the Dean for Student Development in writing, by the third week of the semester, that such information concerning themselves is not to be made available:
   a. Student's name and hometown;
   b. Major field of study or program;
   c. Dates of attendance, degrees, diplomas or awards;
   d. The most recent previous educational institution attended;
   e. Place of birth.
   Request for non-disclosure will be honored by the College for only one academic semester at a time; therefore, requests to withhold Directory Information must be filed with the Dean each term.
4. Information other than "Directory Information" - Any release of student information for public use or use by the media except that designated above (paragraph 3) must have prior written approval by the students involved.
5. Disclosure to Government Agencies - Properly identified and authorized representatives of or bona fide written requests from the Comptroller general of the United States, the Secretary of Health, Education and Welfare, the Department of Defense, an administrative head of a federal education agency, or state educational authorities may have access to student or other records which may be necessary in connection with the audit and evaluation of federal or state supported educational programs or in connection with the enforcement of the federal or legal requirements which relate to such programs or for the purpose of military recruiting. Routine requests for student data from such agencies as HEW, OEO, research agencies, and state reporting agencies may be honored without prior approval of the student only in formats where students are not identified.
6. Faculty and administrative officers of the College who demonstrate a legitimate educational need will be permitted to look at the official student file for a particular student.
7. Confidential information requested by other than federal or state agencies as specified in paragraph 5 above will be released only under the following conditions:
   a. An official order of a court of competent jurisdiction; or
   b. Subpoena (Students will be notified immediately by registered mail that their records are being subpoenaed).
8. Record of Who Has Access - A record of access to the

official student file will be maintained within the file itself. This record will show the name, address, date and purpose of the person who has been granted access. All persons who have access will be included in this record except those institutional employees who, because of the nature of their duties, have been granted access.

Students' Rights to Question Content of Their Official Student Files

1. Students have the right to review their official records maintained by the College. Furthermore, students may question any inaccurate or misleading information and request correction or deletion of such data from their files.
2. All such requests will be sent to the Director of Admissions and Records and will become a part of that student's file.
3. All requests for correction of a student file will be acted upon within 45 work days of receipt of the request. If the custodian can verify that such data are, in fact, in error, appropriate corrections will be made and the student will be notified in writing when the correction has been completed. If an error cannot be readily substantiated, the request will be referred to an Ad Hoc Hearing Committee appointed by the Vice President for Education Support Services. After a student has had the opportunity to present the case to the hearing committee, the committee will render a decision in writing stating the reasons for its decision. If the decision is in agreement with the student's request, the student will be permitted to review the file to verify that the change has been made correctly. If the student's request is denied, the student will be permitted to append a statement to the record in question, showing the basis for the disagreement with the denial. Such additions will become a permanent part of the record.

Annual Notice to Students of Their Rights Under Family Educational Rights and Privacy Act of 1974

The College policy on access to and release of student information will be made available to students, faculty and staff. This information will be placed in the Student Handbook annually.



Pre-College Programs

Pre-College Programs

Adult Basic Education (ABE)

Adult Basic Education offers scheduled classes on the Central Campus and at many community locations to provide learning experiences which meet the basic educational needs of adults in Mecklenburg County. The ABE program is designed to provide learning experiences for adults 18 years old and older whose educational achievement is less than ninth grade, with special emphasis on those adults whose achievement is less than fifth grade. The ABE program also provides experiences which are intended to meet social and personal needs of adult students.

The ABE curriculum includes reading, writing, listening, speaking and mathematics skills. These skills are taught in the context of social studies, health and hygiene, elementary science, consumer education, and other areas of student interest.

For ABE information, call (704) 330-6125.

ABE — Adult Basic Education Course Descriptions

ABE 6001 Adult Basic Education Level I

Upon completion of this course, students should be able to identify names of the letters and sounds of the consonants; identify short and long vowel sounds; identify other vowel and consonant spellings; fill in application forms; use a dictionary; understand concepts of a paragraph; read a story and answer questions about the main idea and details; summarize, recall sequence of events, draw inferences and apply these inferences to everyday life; add and subtract one-digit to multi-digit numbers; multiply and divide one to three-digit numbers; and subtract from zero and multiply with zeros.

ABE 6002 Adult Basic Education Level II

Upon completion of this course, students should be able to form and read new words by adding inflectional endings, prefixes, and suffixes; select appropriate meanings of words; form sentences from phrases; identify topic sentences in paragraphs and the supporting details; add, subtract, multiply, and divide fractions, mixed numbers and decimals; find the percent of a number and determine what percent one number is of another; identify ratios and how to determine a proportion; compute with measures; add, subtract, multiply, and divide positive and negative integers.

Adult Basic Literacy Education (ABLE)

ABLE is a basic skills program which offers an innovative approach for adults who want to read, write, or calculate at an adult level. The program combines the use of microcomputers, video systems, audio tapes, and specialized programming to teach adults whose reading and math skills are below a ninth grade level. Instructors and tutors work one-on-one or in small groups to guide students through program materials and help with use of the equipment.

Instruction in the ABLE program is free for adults 18 years or over. The ABLE program seeks to produce adult literacy by amassing an array of educational media and teaching techniques in one location. The ABLE method speeds the educational process of adult non-readers and enhances their chances for success.

For ABLE information, call (704) 330-5901.

ABL — Adult Basic Literacy Education Course Descriptions

ABL 6003 Basic Reading Level I

Upon completion of this course, students should be able to identify names of the letters and sounds of the consonants; identify short and long vowel sounds; identify other vowel and consonant spellings; fill in application forms; use a dictionary; understand concepts of a paragraph; read a story and answer questions about the main idea and details; summarize, recall sequence of events, draw inferences, and apply these inferences to everyday life.

ABL 6013 Basic Reading Level II

Upon completion of this course, students should be able to form and read new words by adding inflectional endings, prefixes and suffixes; select appropriate meanings of words; form sentences from phrases; identify topic sentences and the supporting details in paragraphs.

ABL 6004 Basic Math Level I

Upon completion of this course, students should be able to add and subtract one-digit to multi-digit numbers, multiply one- to three-digit numbers, divide one- to three-digit numbers, subtract from zero and multiply with zeros.

ABL 6014 Basic Math Level II

Upon completion of this course, students should be able to add, subtract, multiply and divide fractions, mixed numbers and decimals; find the percent of the number and determine what percent one number is of another; identify ratios and how to determine a proportion; compute with measures; add, subtract, multiply, and divide positive and negative integers.

ABL 6015 Basic Grammar Level II

Upon completion of this course, the student will be able to identify subjects and predicates; distinguish between verbs, nouns, pronouns, adjectives, adverbs, prepositions, and articles; form sentences from phrases; identify clauses; use correct synonyms, antonyms and homonyms; punctuate sentences; and write letters.

Adult High School Diploma (HSD)

The Adult High School Diploma program leads to a diploma granted by the Charlotte-Mecklenburg Board of Education.

- Admission into the program requires that an individual be eighteen years old or older. An official transcript, in a sealed envelope from the school last attended, must be sent or presented for evaluation by CPCC.
- For graduation, the Board requires:

English	4 units
Math	3 units (including Algebra)
Government/Economics	1 unit
US History	1 unit
World Cultures/History	1 unit
Biology	1 unit
Earth Science/Ecology	1 unit
Physical Science	1 unit
Electives	7 units

(Required elective: Computer Literacy)
The North Carolina Competency Test

- HSD classes are held on the central campus and at off campus locations.
- There is no charge for HSD classes; however, students must purchase their textbooks.
- Tuition is charged for some electives.

For more information, call (704) 330-6864 or 330-5013.

The courses listed below have been endorsed by the Charlotte-Mecklenburg School System. Based on a review of the individual's transcript, a student will be advised about the appropriate course(s) to take. Successful completion of selected course(s) will result in obtaining a diploma from Charlotte-Mecklenburg Board of Education through CPCC.

HSD - Adult High School Course Descriptions

English:

HSD 6002 High School Diploma English 108:
Prerequisite: Placement Test
This course introduces the basic study of grammar and develops writing mastery through the writing process. Types of writing include narrative and descriptive paragraphs and essays. Vocabulary development, reading comprehension, and oral communication skills are also introduced.

HSD 6003 High School Diploma English 105
Prerequisite: English 108 or Placement Test
This course expands on skills in reading, writing, and oral communication that were introduced in English 108. New concepts and skills are added to give students a basic foundation in English grammar, punctuation, and vocabulary. Students are expected to demonstrate a mastery of these skills in process writing samples.

HSD 6004 High School Diploma English 103:
Prerequisite: English 105 or Placement Test
Based on skills mastered in English 105, students will increase their knowledge of grammar, reading comprehension, and vocabulary by focusing on the following: the writing and punctuation of a variety of sentence types, a review of the parts of speech, the regular use of the newspaper, and a review of basic Latin and Greek roots and suffixes. A major emphasis in this course will be on writing persuasive research papers.

HSD 6005 High School Diploma English 107:
Prerequisite: English 103 or Placement Test
This course emphasizes multi-cultural literature with a focus on understanding the definition and application of certain literary terms as applied to selected passages. Writing includes the development of comparison-and-contrast research papers relating to literary selections. Application of grammar skills learned in all levels of English is reviewed.

Mathematics:

HSD 6012 Foundations of Mathematics:
Prerequisite: Placement Test
This course is designed to give students the opportunity to review and practice the basic skills of arithmetic. Topics covered include addition, subtraction, multiplication and division of whole numbers, decimals, and fractions. Problem-solving skills and estimation are included throughout the course.

HSD 6013 Applications of Mathematics:
Prerequisite: Placement Test
This course expands the basic math skills to include the solution of word problems involving percent applications, proportions, reading charts and graphs for information, estimation, working with measurement, and basic geometry concepts. Applications of the use of math in real-life situations are emphasized throughout the course.

HSD 6014 Pre-Algebra:
Prerequisite: Placement Test
This course builds a foundation for algebra. Topics covered include subsets of the real numbers, simplifying radicals, properties of the real numbers, prime factorization, the language of algebra, working with signed numbers, combining like terms, solving first degree equations, setting up and solving word problems, solving and graphing inequalities.

HSD 6040 Algebra:
Prerequisite: Placement Test
Upon completion of this course, students should be able to solve problems using the symbolism of algebra, solve first degree equations, recognize and graph linear equations, solve systems of two equation, manipulate literal equations, recognize and use of properties of real numbers, simplify expressions containing exponents, multiply polynomials, and factor polynomials.

HSD 6042 Algebra II:
Prerequisite: Placement Test
Upon completion of this course, students should be able to solve first degree equations and inequalities in one variable, solve a system of two equations in two variable both graphically and algebraically, graph first degree inequalities in one variable, factor quadratics, simplify second and third order radicals, simplify expressions involving integer or other rational exponents, solve second order radical equations, solve quadratic equations having real roots (by factoring, completing the square, and using the quadratic formula), and utilize a scientific calculator to evaluate powers or roots and rearrange formulas.

HSD 6044 Modern Geometry:
Prerequisite: Placement Test
This course stresses plane geometry with a brief coverage of trigonometry and solid geometry. Upon completion, students should be able to do simple proofs, solve problems relating to triangle congruence and similarity, do the basic geometric constructions, use a scientific calculator or table to evaluate a trigonometric function or find the missing angle, find the missing parts of a right triangle by trigonometry (including use or a scientific calculator), find perimeter/area/volume of certain geometric figures, and work with parallel lines.

History:

HSD 6022 United States History:
Prerequisite: None
Upon completion of this course, students should be able to interpret major events occurring in American history from 1865 to the present, including changes in social, economic, political, and foreign policy. Topics will include the Reconstruction, Westward Expansion, Industrial Development, The Great Depression, World Wars I & II, and events of the Cold War and Post-Cold War periods.

HSD 6023 Government and Economics:
Prerequisite: None
This course is designed to give students a basic overview of critical issues related to government and economics. The study of government emphasizes the United States Constitution as it relates to the structure of our national government and to the rights of individuals in our society. The study of economics involves a discussion of key economic systems and their

influences on public issues. Application of these concepts to current events and practical situations is emphasized throughout the course.

HSD 6024 World Cultures:
Prerequisite: None
This course is a topical review of civilizations' beginnings in the Mesopotamian basin to an analysis of the political and economic climate fostering the democratization of the world in the modern era. Students should be able to develop an appreciation for the cultural differences and similarities of the peoples of the world as they relate to evolving economic, religious, social, and political customs.

Science:

HSD 6032 Physical Science
Prerequisite: None
This course introduces the basic laws and principles of chemistry and physics. Topics include the scientific method, motion, energy, machines, the nature of matter, atomic structure, chemical bonds, waves, light, sound, and electricity. Upon completion, students will be able to demonstrate an understanding of basic physical science concepts.

HSD 6033 Biology:
Prerequisite: None
This course is a basic study of biological concepts and principles of biology. Upon completion, students should be able to demonstrate an understanding of the nature of science, cell structure and function, chemical and physical basis of life, diversity and classification of living things, genetic inheritance, human anatomy and physiology, and the influence of human activity on the environment.

HSD 6038 Environmental Science
Prerequisite: None
This course introduces the principles of environmental science. Topics include ecosystems, populations, communities, interconnections of living organisms, conservation, effects of human activity on the environment, renewable and nonrenewable resources, and energy flow. Upon completion, students will be able to demonstrate an understanding of basic ecological concepts.

Electives:

These are offered tuition-free to students.

HSD 6052 Personal Development
The course is designed to give students an opportunity to discuss and practice skills that are necessary for personal success. Topics such as time management, effective study skills, and career exploration are examples of critical topics examined.

HSD 6065 Work-Based Learning
This course is designed to afford students a work-based learning experience; develop a personal job search strategy; develop job search skills; and develop an understanding of the work ethic.

HSD 6066 Oral Communications
This course is an introduction to basic oral communications. Covered in the course is oral communications tools, topics and speech delivery. Upon completion of this course, students will display and increased confidence in oral and interpersonal communications. Students will be able to evaluate other speakers and assess the importance of verbal and non-verbal communications in various settings.

HSD 6068 Computer Literacy
This course provides a brief overview of computer concepts. Emphasis is placed on the use of the personal computers and software applications for personal use as well as the work environment. Upon completion of this course, students will be able to demonstrate basic computer skills, using Microsoft Office Professional Applications, such as, Word, PowerPoint, and Excel. Students will also have a working knowledge of the Internet, and be able to successfully navigate the World Wide Web.

HSD 6071 Fundamentals of Family Nutrition
Upon completion of this course, students will be able to manage dietary choices for their families by considering the daily requirements for adults and children. Topics will include types of nutrients, diseases linked with malnutrition, developmental nutritional needs, and food pyramids. Students will be able to formulate personal nutritional goals that should lead to better health and improved overall performance.

HSD 6073 Keyboarding
This course is designed to introduce the mechanics of keyboarding. Emphasis is placed on correct techniques, and the development of speed and accuracy. Formatting simple correspondences, and simple computer floppy disk storage management are explored. Upon completion, students will be able to key with increased speed and accuracy using the touch system.

HSD 6075 Errors in Reasoning
Upon completion, students will be able to identify three types of errors people make in solving problems. Students will learn to verbalize a systematic problem solving process and apply the process to different problems. Each student will learn to observe and use all available facts to solve problems. These skills build confidence in problem solving.

HSD 6077 Unlocking the Printed Page
Upon completion of this course, students will be more confident with a variety of reading material. Students will learn the appropriate reading strategies for English, history , math, and science materials as well as short stories and essays. Emphasis will be placed on building students vocabulary through context clues, identifying relationships, and dictionary skills.

HSD 6078 Creative Writing
This course is designed to offer students the experience of four different genres in literature, autobiography, the short story, poetry, and playwrights. Along the way students will learn various terms and create a portfolio of their own works in these specifics genre for a final grade. Emphasis will be placed on knowledge of genre components, comprehension, and creative enthusiasm and participation.

HSD 6079 Great Stories of the Bible:
The purpose of this course is to expose students to the literature of the Bible. Upon completion of this course, students will be able to compare and contrast interpretations from Jewish, Catholic, Protestant, and Muslim experience. Students will integrate writing, research and visual/performing art skills throughout the course of study.

HSD 6082 Conversational Spanish
This course is designed to provide an opportunity for communication in Spanish. Students will focus on learning vocabulary through interactive discussions. Upon completion, students should be able to carry on informal conversations.

HSD 6086 Peer Tutoring
This course is designed to give exemplary Adult High School students the opportunity to assist their peers in mastering course concepts and provide supportive relationships.

Advancement Studies

Advancement Studies is an instructional program for students who have not reached college-level in the areas of English, reading, mathematics, biology or chemistry.

The philosophy of Advancement Studies is that each student has unique educational needs and goals . Once these goals are identified, they can best be reached by allowing students to progress in an open, caring atmosphere.

Each course in Advancement Studies has stated objectives and a system to help students accomplish those objectives. Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by the College's placement test.

For more information, call (704) 330-6506 or 6762

Advancement Studies Course Descriptions

BIO — Biology

	Lecture	Lab	Credit
BIO 090 Foundations of Biology	3	2	4

Prerequisites:
Corequisites: RED 090
This course introduces basic biological concepts. Topics includes basic biochemistry, cell structure and function, interrelationships among organisms, scientific methodology, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level biology courses.

CHM — Chemistry

	Lecture	Lab	Credit
CHM 090 Chemistry Concepts	4	0	4

Prerequisites: None
Corequisites: None
This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.

ENG — English

Initial student placement in developmental courses is based on CPCC's placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by the College's placement test.

	Lecture	Lab	Credit
ENG 060 Speaking English Well	2	0	2

Prerequisites: None
Corequisites: None
This course is designed to improve conversational skills. Emphasis is placed on practice using fluent standard spoken English. Upon completion, students should be able to converse comfortably in a variety of situations. [*This course does not satisfy the developmental reading and writing prerequisite for ENG 111 or ENG 111A].*

ENG 080 Writing Foundations	3	2	4

Prerequisites: Appropriate Placement Test Score(s)
Corequisites: None
This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. *[This course does not satisfy the developmental reading and writing prerequisite for ENG 111.]*

ENG 090 Composition Strategies	3	0	3

Prerequisites: ENG 080 or Appropriate Placement Test Score(s)
Corequisites: ENG 090A
This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. *This course satisfies the developmental writing prerequisite for ENG 111 and ENG 111A.*

ENG 090A Composition Strategies Lab	0	2	1

Prerequisites: ENG 080 or Appropriate Placement Test Score(s)
Corequisites: ENG 090
This writing lab is designed to reinforce the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

MAT — Mathematics

Initial student placement in developmental courses is based on CPCC's placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that College's placement test.

	Lecture	Lab	Credit
MAT 050 Basic Math Skills	3	2	4

Prerequisites:
Corequisites: None
This course is designed to prepare students with the necessary skills to take other mathematic courses at CPCC. Topics include whole numbers, fractions, and decimals. The focus of this course is to build students' confidence in these topics, teach them how to perform basic computation skills, and solve relevant mathematical problems.

MAT 060 Essential Mathematics	3	2	4

Prerequisites: Appropriate Placement Test Score(s)
Corequisites: None
This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform

basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

MAT 070 Introductory Algebra 3 2 4
Prerequisites: MAT 060, or Appropriate Placement Test Score(s)
Corequisites: None
This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

MAT 080 Intermediate Algebra 3 2 4
Prerequisites: MAT 070, or Appropriate Placement Test Score(s)
Corequisites: None
This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

RDN — Reading

Initial student placement in developmental courses is based on CPCC's placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that College's placement test.

Lecture Lab Credit

RED 080 Introduction to College Reading 3 2 4
Prerequisites: Appropriate Placement Test Score(s)
Corequisites: None
This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. *This course does not satisfy the developmental reading prerequisite for ENG 111 or ENG 111A.*

RED 090 Improved College Reading 3 2 4
Prerequisites: RED 080 or Appropriate Placement Test Score(s)
Corequisites: None
This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. Students will also be able to respond effectively to material across disciplines. *[This course satisfies the developmental reading prerequisite for ENG 111.]*

Community Leadership/ Family Advocacy

This program is designed to strengthen and support communities by supporting families and developing community leaders who have the skills and the sense of empowerment necessary to effect positive change. The Community Leadership component addresses five training areas: Individual Growth, Leadership Development, Group Cohesion, Community Development and Strengthening Families.

(These classes are not listed in the published schedule — all registrations are done in class) For more information call (704) 330-6219.

Community Leadership/Family Advocacy Course Descriptions

FAP 7001 Child Growth and Development
This course examines the development milestones in children from infancy through adolescence. Special attention is given to choosing quality childcare; the importance of parent-teacher conferences and effective discipline techniques.

FAP 7003 Today's Family
This course introduces some of the interpersonal and communication skills necessary for families to function in todayíss society. Topics include: self-understanding; assertive, passive and aggressive behaviors; characteristics of healthy families; and effects of chemical dependency on the family.

FAP 7004 Personal Development
Students will learn the basics of computer technology utilizing Windows 95 operating system. They will practice effective job seeking strategies including resume writing and interviewing skills.

CLS 7002 Community Organization and Resources
Students will learn how to organize community meetings and will become knowledgeable about community agencies available to assist families. Students will demonstrate their leadership skills through the organization and implementation of a community volunteer project.

The Family Advocacy component recognizes the need for supporting and educating adults as parents as well as providing opportunities for continued job enhancement skills. FAP 7008 – Parenting Birth to Four. This course offers parenting information on children ages birth to four. It is designed for working parents who want more information on child rearing to lessen family stress thereby enabling them to be more focused when at work.

FAP 7009 Parenting Five to Twelve Year Olds
This course begins with the premise that parenting is both important and difficult. It covers child management techniques for children five to twelve years of age.

FAP 7010 Parenting of Teens
This course helps parents understand developmental changes in teens, as shown through their behaviors. Parents will learn to communicate more effectively, to discipline while teaching responsibility and to help their teens with nonviolent conflict resolution.

FAP 7007 Domestic Violence Offenders
This course examines the social context of violence in a domestic setting paying particular attention to the OFFENDER. It is designed to be given in a workshop format and is appropri-

ate for In-service training for professionals working in the Domestic Violence Prevention arena. Workshop topics include: Addictive Behaviors, The Resistive Client, Effects of Domestic Violence on Children, The Female Perpetrator, Stalking and The High Risk Offender.

FAP 7012 Empowerment Skills For Family Workers
This course is designed to equip Family Support Workers with the skills and competencies needed to effectively work with families. It is required for those workers seeking a Family Support credential.

Compensatory Education (CED)

Compensatory Education offers scheduled classes for persons who have special learning needs due to a developmental disability or traumatic brain injury. Classes are offered on the Central Campus as well as in community agencies providing job training and employment. Classes are structured to meet the individual needs of each student.

The primary emphasis is on the basic life skills needed for successful employment and independent living. The curriculum covers a broad range of subjects, including reading, writing, math, health, consumer education, social studies, job seeking and other work related skills. Throughout the program, there is a strong emphasis on the practical application of these subjects to the challenges of daily life.

To be eligible for these classes, students must be 18 years old, no longer attending public school, and able to provide evidence of a developmental disability or brain injury. *These classes are not listed in the published schedule and all registration is done in class.*

For more information and a current class schedule, please call (704) 330-6033.

CED — Compensatory Education Course Descriptions

CED 6110 Consumer Education
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Basic Information, Money Management, Legal and Financial Matters.

CED 6111 Vocational Education
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Work Performance Skills, Vocational Awareness, Job Seeking Skills.

CED 6112 Health
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Physical Health, Mental Health.

CED 6113 Community Living
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Home Management, Food Management, Community Knowledge and Access, Community Services.

CED 6114 Math
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Prerequisite Skills, Time Telling, Money Skills, Functional Measurement, Addition, Subtraction, Multiplication, Division, Fractions, Decimals.

CED 6115 Language
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Pre-reading, Reading, Writing, Spelling, Grammar, Reading Enrichment.

CED 6116 Social Science
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Geography, Government, The Legal System, Current Events, American History.

**Based on student needs, skill areas from other courses may be added to any of these courses.*

Academic English as a Second Language (Academic ESL)

(Also see Adult English as Second Language courses with prefix of LEP.)

The Academic English as a Second Language program prepares non-native speakers of English to function successfully in institutions of higher education and professional settings in the United States. Coursework provides knowledge of and practice in academic reading, grammar, listening, speaking, and composition. Among other skills, students learn to make presentations to groups, write a research paper, and take notes from classroom lecturers. Attention is also paid to the student's cultural awareness, particularly to that of the academic environment.

For more information, call the International Programs Division office at (704) 330-6484.

Academic English as a Second Language Course Descriptions

	Lecture	Lab	Credit
EFL 030 ESL for Specific Purposes	3	0	3

Prerequisites: Depends on the particular topic
Corequisites: Depends on the particular topic
This course will provide instruction in academic and professional language for non-native speakers of English. Emphasis is placed on development of integrated language use for carrying out a specific academic task. Upon completion, students should be able to demonstrate improved language skills for participation and success within the particular topic area.

EFL 050 ESL for Academic Purposes	5	0	5

Prerequisites: Depends on particular topic
Corequisites: Depends on particular topic
This course will provide instruction in academic and professional language skills for non-native speakers of English. Emphasis is placed on development of integrated language skills for use in studying a particular content area. Upon completion, students will demonstrate improved academic language, content-specific vocabulary and skills, and cultural knowledge in the topic area.

EFL 061 Listening/Speaking I	5	0	5

Prerequisites: None
Corequisites: None
This course is designed to provide the basic oral/aural language skills needed for essential daily conversation on campus and in the community. Emphasis is placed on vocabulary build-

ing, communication in various social and academic situations, and various spoken grammatical skills. Upon completion, students should be able to produce and understand English dealing with routine topics using basic syntax and vocabulary skills.

EFL 062 Listening/Speaking II 5 0 5
Prerequisites: EFL 061, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to enhance intermediate listening and speaking skills of non-native speakers of English. Emphasis is placed on the ability to hold extended conversation and on the ability to understand extended spoken discourse. Upon completion, students should be able to demonstrate improved listening skills and strategies in a variety of settings.

EFL 063 Listening/Speaking III 5 0 5
Prerequisites: EFL 062, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to increase the ability and confidence of high intermediate-level non-native speakers of English in verbal expression and listening comprehension. Emphasis is placed on listening/speaking skills which would be appropriate for group discussions, oral presentations, and note taking. Upon completion, students should be able to successfully participate in high intermediate-level listening and speaking activities.

EFL 064 Listening-Speaking IV 5 0 5
Prerequisites: EFL 063, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to prepare advanced-level non-native speakers of English for academic and professional speaking and listening activities. Emphasis is placed on learning and practicing strategies of effective oral expression and comprehension of spoken discourse in informal and formal settings. Upon completion, students should be able to effectively participate in activities appropriate to academic and professional settings.

EFL 071 Reading I 5 0 5
Prerequisites: None
Corequisites: None
This course is designed to help those literacy skills achieve reading fluency in English at the beginning level. Emphasis is placed on basic academic and cultural vocabulary and reading strategies which include self-monitoring, and recognizing organizational styles and context clues. Upon completion, students should be able to use these strategies to read and comprehend basic academic, narrative, and expository texts. This course is intended for non-native speakers of English.

EFL 072 Reading II 5 0 5
Prerequisites: EFL 071, or placement test, or consent of Division Director.
Corequisites: None
This course provides preparation in academic and general purpose reading in order to achieve reading fluency at the low-intermediate level. Emphasis is placed on expanding academic and cultural vocabulary and developing effective reading strategies to improve comprehension and speed. Upon completion, students should be able to read and comprehend narrative and expository texts at the low-intermediate instructional level. This course is intended for non-native speakers of English.

EFL 073 Reading III 5 0 5
Prerequisites: EFL 072, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to develop fundamental reading and study strategies at the intermediate level needed for curriculum programs. Emphasis is placed on building vocabulary and cultural knowledge, improving comprehension, and developing study strategies on basic-level college materials and literary works. Upon completion, students should be able to read and comprehend narrative and expository texts at the intermediate instructional level. This course is intended for non-native speakers of English.

Lecture Lab Credit

EFL 074 Reading IV 5 0 5
Prerequisites: EFL 073, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to enhance the academic reading skills for successful reading ability as required in college-level courses. Emphasis is placed on strategies for effective reading and the utilization of these strategies to improve comprehension, analytical skills, recall, and overall reading speed. Upon completion, students should be able to comprehend, synthesize, and critique multi-disciplinary college level reading/textbook materials. This course is intended for non-native speakers of English.

EFL 081 Grammar I 5 0 5
Prerequisites: None
Corequisites: None
This course provides non-native speakers of English with a variety of fundamental grammatical concepts which enrich language skills and comprehension. Emphasis is on key basic grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate comprehension and correct usage of specified grammatical concepts.

EFL 082 Grammar II 5 0 5
Prerequisites: EFL 081, or placement test, or consent of Division Director.
Corequisites: None
This course provides non-native speakers of English with a variety of basic grammatical concepts which enrich language skills and comprehension. Emphasis is on key low-intermediate grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate by written and oral means the comprehension and correct usage of specified grammatical concepts.

EFL 083 Grammar III 5 0 5
Prerequisites: EFL 082, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to provide high-intermediate non-native speakers of English with a knowledge of grammatical structures that improves academic communication. Emphasis is placed on using high-intermediate grammatical structures in meaningful contexts through exercised integrating the use of newly acquired structures with previously learned structures. Upon completion, students should be able to demonstrate improved proficiency, comprehension, and grammatical accuracy.

EFL 084 Grammar IV 5 0 5
Prerequisites: EFL 083, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to give non-native speakers of English a full understanding of advanced grammatical structures and techniques. Emphasis is placed on oral and written communicative fluency through the study of advanced grammatical forms. Upon completion, students should be able to incorporate the structures covered in both spoken and written form, demonstrating improved proficiency, comprehension, and grammatical accuracy.

EFL 091 Composition I 5 0 5
Prerequisites: None
Corequisites: None
This course introduces basic sentence structure and writing paragraphs. Emphasis is placed on word order, verb tense-aspect system, auxiliaries, word forms, and simple organization and basic transitions in writing paragraphs. Upon completion, students should be able to demonstrate a basic understanding of grammar and ability to write English paragraphs using appropriate vocabulary, organization, and transitions. This course is intended for non-native speakers of English.

EFL 092 Composition II 5 0 5
Prerequisites: EFL 091, or placement test, or consent of Division Director.
Corequisites: None
This course provides preparation in low-intermediate academic and general-purpose writing. Emphasis is placed on writing as a process, paragraph development, and basic essay organization. Upon completion, students should be able to write and independently edit and understand the major elements of the writing process, sentence, paragraph, and essay. This course is intended for non-native speakers of English.

EFL 093 Composition III 5 0 5
Prerequisites: EFL 092, or placement test, or consent of Division Director.
Corequisites: None
This course covers intermediate-level academic and general-purpose writing. Emphasis is placed on the writing process, content, organization, and language use in formal academic compositions in differing rhetorical modes. Upon completion, students should be able to effectively use the writing process in a variety of rhetorical modes. This course is intended for non-native speakers of English.

EFL 094 Composition IV 5 0 5
Prerequisites: EFL 093, or placement test, or consent of Division Director.
Corequisites: None
This course prepares low-advanced non-native speakers of English to determine the purpose of their writing and to write paragraphs and essays to fulfill that purpose. Emphasis is placed on unity, coherence, completeness, audience, and the writing process; and the grammatical forms and punctuation appropriate for each kind of writing. Upon completion, students should be able to write unified, coherent, and complete paragraphs and essays which are grammatical and appropriate for the intended audience. This course is intended for non-native speakers of English.

EFL 095 Composition V 5 0 5
Prerequisites: EFL 094, or placement test, or consent of Division Director.
Corequisites: None
This course is designed to prepare advanced non-native speakers of English for college-level composition courses. Emphasis is placed on the study and process of writing formal essays and research papers and the analysis of literary, expository, and descriptive writings. Upon completion, students should be able to write and analyze professional and peer compositions and apply basic research principles. This course is intended for non-native speakers of English.

EFL 111 *English for Internationals I 4 0 4
Prerequisites: EFL 084 and EFL 094, or placement test, or consent of Division Director
Corequisites: EFL 181
This course is designed to prepare advanced non-native speakers of English for successful communication. Emphasis is placed on writing and editing of advanced level compositions for organization, grammatical correctness and clarity. Upon completion, students should be able to converse and write in various organizational formats. When registering for this class, students will automatically be registered for EFL 181, EFL Lab 1.

EFL 112 *English for Internationals II 4 0 4
Prerequisites: EFL 074 and EFL 064, or placement test, or consent of Division Director
Corequisites: EFL 182
This course is designed to refine academic reading and comprehension skills for advanced non-native speakers of English. Emphasis is placed on understanding academic texts and developing effective note taking skills in the various disciplines. Upon completion, students should be able to differentiate between main points, supporting and extraneous information, and take organized notes on lectures and texts. When registering for this class, students will automatically be registered for EFL 182, EFL Lab 2.

EFL 181 *EFL Lab 1 0 2 1
Prerequisites: None
Corequisites: EFL 111
This course is designed to enhance the preparation of advanced non-native speakers of English for successful communication as required in college-level courses. Emphasis in placed on the writing and editing of compositions for grammatical accuracy and clarity through the use of supplementary learning media and materials. Upon completion, students should be able to converse and write in various organizational formats.

EFL 182 *EFL Lab 2 0 2 1
Prerequisites:
Corequisites: EFL 112
This course is designed to enhance reading and comprehension skills for advanced non-native speakers of English. Emphasis in placed on understanding academic texts and developing effective note taking skills through the use of supplementary learning media and materials. Upon completion, students should be able to differentiate between main points, supporting and extraneous information, and take organized notes on lectures and texts.

*This course is a transfer elective for students whose first language is not English.

General Educational Development (GED)

The GED program offers another option for students who have not completed high school and leads to a high school equivalency diploma issued by the North Carolina Department of Community Colleges.

- Admission to the program requires that an individual be at least eighteen years old. A pre-test is administered to evaluate performance levels and determine whether the student is ready for the GED tests or whether preparation is needed through GED classes.
- To earn the GED diploma, a student must pass five individual tests: writing skills (including a written essay), mathematics, science, social studies, and literature.
- Students needing to prepare for the GED tests enroll for classes on the central campus or in off-campus centers. These classes allow students to progress at their own pace and to schedule attendance to best suit their needs.
- There is no charge for pre-testing or for GED classes.
- Students may purchase books to assist with their studies. A fee of $7.50 is charged for the GED test.

For more information, call (704) 330-6949.

GED — General Educational Development Course Descriptions

GED 6001 General Educational Development: This course prepares students to pass the final GED test. Based on a pre-test, instruction is tailored to meet needs of the individual student either in structured classes on the Central Campus or on an individualized basis at Area Centers. Students complete the course when they earn a cumulative score of 250 on the post-test and/or are certified by the instructor.

GED 6005 General Educational Development (Final testing): This course/test is the successful completion of the GED test battery. A cumulative score of 225 with no individual test score below 40 indicates successful completion.

Adult English As A Second Language (ESL)

The Adult ESL program provides English language instruction to international adults who are immigrants or refugees. Courses are designed at beginning and intermediate levels to emphasize language skills in social and work settings.

The Adult ESL program seeks to prepare students with the cultural knowledge and skills they need to function in English in their multiple roles as adults. The program endeavors to empower students with the English language skills needed to attain the following goals:

- To become informed participating members of their community.
- To become literate in workplace/training context
- To become independent and confident learners

The curriculum is flexible and reflects the needs of the students. Classes meet on the Central Campus and at a variety of locations throughout the community. For more information, call (704) 330-6838.

Adult English as a Second Language Course Descriptions

LEP 6005 Introduction to ESL Literacy Skills

Introducing ESL Literacy Skills

These courses provide an ***introduction*** to learning and practicing language skills needed to develop fluency in English. They focus on vocabulary and routine phrases that students will encounter in their day-to-day living in their community. Skill focus is on listening as a means of learning English outside of the classroom and on practicing key routine phrases that are used in accessing day-to-day resources. Reading and writing skills in these courses pertain to the completion of forms and to reinforcing key routine phrases. Students will be able to use their listing and oral skills to complete basic day-to-day tasks in their community.

LEP 6006 Beginning ESL Skills

These courses build skills needed to develop oral fluency and literacy in English. They focus on vocabulary and routine phrases that students will encounter in their immediate and surrounding environment. Specific skill focus is on building reading/writing and listening strategies needed for general comprehension and on developing more fluent speaking skills. Students will be able to use English skills to access and respond to community information and to become informed about job possibilities.

LEP 6007 Intermediate ESL Skills

These courses develop skills students need to participate in community activities and workplace issues. The emphasis is on developing critical thinking skills through reading and writing and to develop social communication skills that are accurate and appropriate in varied situations. Specifically, students will become familiar with and be able to respond to different text types. Students will be able to communicate effectively in one-on-one situations and in small group settings.

LEP 6008 High-Intermediate ESL Skills

These courses strengthen skills students need to function successfully in social and professional contexts. The emphasis is on increasing literacy skills through exposure to and mastery of multiple text-types. In addition, students will increase their communication skills be participating in a variety of problem-solving/content-based language experiences. Students will refind the ability to monitor and self-correct their oral and written communication so that they can become more self-directed in their learning. Students will be able to make informed choices about community involvement and will be prepared for professional training.



College-Level Programs

A.A.S. — Degree, Diploma and Certificate Programs

College-Level Programs

Associate in Applied Science (A.A.S.) Degrees, Diplomas, & Certificates

Introduction

The programs in the following section are primarily designed for students who intend to enter the workforce upon graduation. Certain programs are available at all campuses. Others are available only at certain campuses. However, many general education requirements are offered at all CPCC campuses.

Some two-year degree programs also have one-year diplomas, as well as certificates that require less than one year of full-time study. These appear in the alphabetical listing of programs contained in this Catalog section.

Requirements

Associate in Applied Science Degrees

These degrees are awarded after completion of a minimum of 64 semester credit hours, or the number of credit hours specified by each area of study, including the required general education courses for that area.

A minimum of 21 credit hours must be earned at CPCC, 12 of which must be the final credit hours prior to graduation.

Official copies of high school and all other college/university transcripts must be in the student's folder in the Student Records office.

Associate in Applied Science Degrees are awarded in the following areas:

Accounting
Advertising and Graphic Design
Air Conditioning, Heating, and Refrigeration Technology
Architectural Technology
Associate Degree Nursing
Automotive Systems Technology
Business Administration (Central and South Campus program)
  International Business Concentration
  Marketing and Retailing Concentration
  Operation Management Concentration
Cardiovascular Technology
Civil Engineering Technology
Computer Engineering Technology
Criminal Justice Technology (North Campus program)
Culinary Technology
Dental Hygiene
Early Childhood Associate
Electrical Engineering Technology
Electrical/Electronics Technology
Electronics Engineering Technology
Fire Protection Technology(Central and North Campus program)
Graphic Arts and Imagining Technology
  Flexography Concentration
Health Information Technology
Heavy Equipment and Transport Technology
Horticulture Technology
Hotel and Restaurant Management
Human Services Technology
  Developmental Disabilities Concentration
  Gerontology Concentration
  Substance Abuse Concentration
Industrial Maintenance Technology
Information Systems (Central and South Campus program)
  Programming Concentration
  Network Administration and Support Concentration
Interior Design
Interpreter Education
Machining Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Medical Assisting
Medical Laboratory Technology
Office Systems Technology
  Legal Concentration
Medical Office Administration
Paralegal Technology
Physical Fitness Technology
Physical Therapist Assistant
Respiratory Care
Surveying Technology
Telecommunications and Network Engineering
Travel and Tourism Technology
Welding Technology

Diplomas

Diplomas are awarded after completion of a minimum of 36 semester credit hours of required courses in the student's program of career study.

For program completion, the final 9 credit hours must be earned at CPCC.

Official copies of high school and all other college/university transcripts must be in the student's folder in the Student Records Office.

Diplomas are awarded in the following areas:

Air Conditioning, Heating, and Refrigeration Technology
Auto Body Repair
Automotive Systems Technology
Dental Assisting
Electrical/Electronics Technology
Heavy Equipment and Transport Technology
Horticulture Technology
Hotel Management Diploma
Information Systems/Computer Operations
Machining Technology
Mechanical Drafting Technology
Medical Assisting
Office Systems Technology/General Clerical Skills
Office Systems Technology/Word Processing Operator
Paralegal Technology
Restaurant Management Diploma
Travel and Tourism
Welding Technology

Certificates

Certificates are awarded after completion of a minimum of 12 semester credit hours of required courses in the student's program of study.

For program completion, the final 6 credits hours must be earned at CPCC.

Certificates are awarded in the following areas:

Basic Law Enforcement Training (North Campus program)
Cytotechnology

Specialized Certificates

Special short-term certificates are offered in a number of programs. In most cases, courses in certificate programs are taken from diploma and degree programs and may be completed in shorter time frames. A student may earn certificates that build to earning a diploma or degree. A student may earn a certificate(s) in the same semester that he or she earns a degree or diploma.

AAS General Education Goals

Associate in Applied Science (A.A.S.)

I. READING

Students will demonstrate the ability to obtain meaning from printed, electronic, and graphical resources.

II. COMMUNICATION

Students will effectively communicate both orally and in writing. Students will demonstrate the ability to locate, critically evaluate, and present information.

III. MATHEMATICS

Students will apply mathematical concepts and skills to analyze, manipulate, and interpret quantitative data.

IV. COMPUTER SKILLS

Students will demonstrate the basic computer skills necessary to function in a technological world.

V. CRITICAL THINKING / PROBLEM SOLVING

Students will demonstrate an understanding of solving problems by recognizing the problem; reviewing information about the problem; developing plausible solutions; and evaluating results.

VI. CULTURAL AWARENESS

Students will demonstrate knowledge of cultural similarities and differences.

VII. SOCIAL / BEHAVIORAL SCIENCES

Students will demonstrate an understanding of the influence of the individual on group behavior and conversely, the influence of the group on the individual.

VIII. HUMANITIES / FINE ARTS

Students will demonstrate knowledge of the humanities and critical skills in assessing cultural/artistic merit and significance.

Accounting (A25100)

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the language of business, accountants assemble, analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

Degree Awarded

The Associate in Applied Science Degree - Accounting is awarded by the College upon completion of this program.

Note

Students interested in transferring to a senior institution should take COM 231 Public Speaking in lieu of COM 110 Introduction to Communication and should take MAT 161 College Algebra in lieu of MAT 140 Survey of Mathematics.

For More Information

The Accounting Program is in the Business and Accounting Division. For information, call the Program Chair 704- 330-6696, weekdays, 7:30 a.m.- 4:30 p.m. The Program Counselor can be reached at 704- 330-6229. Students may also receive information through the office of the Dean, South Campus.

Admissions

- High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics and reading.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 110 Ten Key Calculator	0	2			1
ACC 120 Principles of Accounting I	3	2			4
ACC 121 Principles of Accounting II	3	2			4
ACC 125 Mathematics of Finance	3				3
ACC 129 Individual Income Taxes	2	2			3
ACC 130 Business Income Taxes	2	2			3
ACC 149 Introduction to Accounting Spreadsheets	1	2			2
ACC 150 Computerized General Ledger	1	2			2
ACC 220 Intermediate Accounting I	3	2			4
ACC 221 Intermediate Accounting II	3	2			4
ACC 225 Cost Accounting	3				3
ACC 250 Advanced Accounting	3				3
ACC 269 Auditing	3				3
BUS 115 Business Law I	3				3
BUS 121 Business Math	2	2			3
BUS 225 Business Finance	2	2			3
CIS 111 Basic PC Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3
Technical Electives					
Students must choose one course from the following:					
ACC 140 Payroll Accounting	1	2			2
ACC 151 Accounting Spreadsheet					

Applications	1	2			2
ACC 240 Government and Not-for-Profit Accounting	3				3
BUS 125 Personal Finance	3				3
BUS 210 Investment Analysis	3				3
COE 112 Co-op Work Experience I	0			20	2
COE 122 Co-op Work Experience II	0			20	2

General Education Core Requirements

COM 110 Introduction to Communication OR	3				3
COM 231 Public Speaking					
ECO 252 Principles of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 140 Survey of Mathematics OR	3				3
MAT 161 College Algebra					
Humanities and Fine Arts Goal					
Students must choose a minimum of three credit hours from the list of approved humanities coursed listed at the end of this section of the catalog.	3				3
Total Credit Hours					**73**

Accounting Certificate (C25120-C1)

Specialization Certificate

This certificate is designed to provide the student with a concentrated course of study in the field of accounting. Upon completion of the seven courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Accounting.

For more information, call the Program Chair at 704-330-6696. The certificate program is offered on the Central Campus.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2	0	0	4
ACC 121 Principles of Accounting II	3	2	0	0	4
ACC 110 Ten-Key Calculator	0	2	0	0	1
ACC 149 Introduction to Accounting Spreadsheets	2	2	0	0	3
ACC 150 Computerized General Ledger	2	2	0	0	2
BUS 121 Business Math	2	2	0	0	2
CIS 111 Basic PC Literacy	1	2	0	0	2
Total Credit Hours					**18**

Advertising and Graphic Design (A30100)

The Advertising and Graphic Design curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession, which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.

Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media.

Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphics operations.

Degree Awarded

The Associate in Applied Science Degree - Advertising and Graphic Design is awarded by the College upon completion of this program.

For More Information

The Advertising and Graphic Design program is in the Visual and Performing Arts Division. For more information call a Program Counselor at 704-330-6059 or 4415 or the Program chair at 704-330-4481, weekdays from 8 a.m. - 5 p.m.

Admissions

- High School Diploma or equivalent is required.
- Placement tests determine enrollment in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ART 117 Non Western Art History	3	0			3
ART 121 Design I	**1**	**4**			**3**
ART 131 Drawing I	**0**	**6**			**3**
ART 132 Drawing II	0	6			3
GRD 110 Typography I	2	2			3
GRD 111 Typography II	2	2			3
GRD 113 History of Graphic Design	3	0			3
GRD 131 Illustration I	1	3			2
GRD 142 Graphic Design II	2	4			4
GRD 151 Computer Design Basics	**1**	**4**			**3**
GRD 152 Computer Design Tech I	1	4			3
GRD 160 Photo Fundamentals I	1	4			3
GRD 241 Graphic Design III	2	4			4
GRD 242 Graphic Design IV	2	4			4
GRD 263 Illustrative Imaging	1	4			3
GRD 265 Digital Print Production	1	4			3
GRD 280 Portfolio Design	2	4			4
GRD 282 Advertising Copywriting	1	2			2

General Education Core Requirements

ART 115 Art History Survey II	**3**	**0**			**3**
COM 231 Public Speaking	3	0			3
ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
MAT 115 Mathematical Models	**2**	**2**			**3**
PSY 150 General Psychology	3	0			3
Work Experience					
COE 221 Co-op Work Experience V	0			10	1
Total Credit Hours					**75**

Advertising & Graphic Design with a Specialization in Illustration (C30100-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ART 121 Design I	1	4			3
ART 131 Design II	0	6			3
ART 132 Design II	0	6			3
GRD 131 Illustration I	1	3			2
GRD 151 ComDes Basics	1	4			3
GRD 263 Illustrative Imaging	1	4			3
COE 221F Co-op Work Experience	0	0		10	1
Total Credit Hours					**18**

Advertising & Graphic Design with a Specialization in Typography (C30100-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRD 151 ComDes Basics	1	4			3
GRD 110 Typography I	2	2			3
GRD 111 Typography II	2	2			3
GRD 142 Graphic Design II	2	4			4
GRD 241 Graphic Design III	2	4			4
COE 221F Co-op Work Experience	0	0		10	1
Total Credit Hours					**18**

Air Conditioning, Heating and Refrigeration Technology (A 35100)

The Air Conditioning, Heating, and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The program covers air conditioning, furnaces, heat pumps, tools and instruments, residential building codes, residential system sizing, and advanced comfort systems.

Graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems and demonstrate an understanding of system selection and balance and advanced systems.

Degree Awarded

An AAS Degree in Air Conditioning, Heating and Refrigeration Technology is awarded by the College upon completion of this program.

For More Information

The Air Conditioning, Heating, and Refrigeration Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4446, or the Division office at 704-330-4445, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Note

Basic tools are required for some courses. A list may be obtained from the instructor.

Admissions

- Completion of a High School Diploma is required for entering AAS program.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 112 Heating Technology	2	4			4
BPR 130 Blue Print Reading/Const.	1	2			2
WLD 112 Basic Welding Processes	1	3			2
AHR 113 Comfort Cooling	2	4			4
AHR 114 Heat Pump Technology	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 130 HVAC Controls	2	2			3
AHR 220 Commercial Building Codes	1	2			2
AHR 211 Residential System Design	2	2			3
AHR 212 Advanced Comfort Systems	2	6			4
AHR 225 Commercial System Design	2	3			3
AHR 215 Commercial HVAC Controls	1	3			2
AHR 240 Hydronic Heating	1	3			2
AHR 180 HVACR Customer Relations	1	0			1
AHR 125 HVAC Electronics	1	3			2
AHR 140 All Weather Systems	1	3			2
Students must choose 3 hours from the following :					
AHR 235 Refrigeration Design	2	2			3
AHR 293 Selected Topics in HVACR	2	2			3
AHR 133 HVAC Servicing	2	6			4

General Education Core Requirements

ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research	3	0			3
MAT 115 Mathematical Models	2	2			3
CIS 111 Basic PC Literacy	1	2			2
Student must select one of the following:					
COM 110 Introduction to Communications	3	0			3
OR					
COM 231 Public Speaking	3	0			3
Student must choose one course from the following list of courses:					
ART 111 Art Appreciation	3	0			3
DAN 110 Dance Appreciation	3	0			3
DRA 111 Theatre Appreciation	3	0			3
HUM 115 Critical Thinking	3	0			3
HUM 160 Introduction to Film	3	0			3
MUS 110 Music Appreciation	3	0			3
HUM 130 Myth in Human Culture	3	0			3
COM 140 Intercultural Communications	3	0			3
Student must choose one course from the following list of courses :					
ECO 151 Survey of Economics	3	0			3
HIS 231 Recent American History	3	0			3

HIS 236 North Carolina History	3	0		3
POL 220 International Relations	3	0		3
PSY 150 General Psychology	3	0		3
SOC 210 Introduction to Sociology	3	0		3
SOC 220 Social Problems	3	0		3
Total Credit Hours				**73**

Air Conditioning, Heating, and Refrigeration Technology Diploma (D35100)

The Air Conditioning, Heating, and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing, and advanced comfort systems.

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. AAS degree graduates should be able to demonstrate an understanding of system selection and balance, and advanced systems.

Diploma Awarded

A Diploma in Air Conditioning, Heating and Refrigeration Technology is awarded by the college upon completion of this program.

Graduates may apply for advanced standing in the Air Conditioning, Heating, and Refrigeration Technology Degree Program.

For More Information

The Air Conditioning, Heating, and Refrigeration Technology program is in the Technical Careers Division. For more information, call the Program Chair - 704- 330-4446, or the Division office - 704- 330-4445, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Note

Basic tools are required for some courses. A list may be obtained from the instructor.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 112 Heating Technology	2	4			4
BPR 130 Blue Print Reading/Const.	1	2			2
WLD 112 Basic Welding Processes	1	3			2
AHR 113 Comfort Cooling	2	4			4
AHR 114 Heat Pump Technology	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 130 HVAC Controls	2	2			3
AHR 180 HVACR Customer Relations	1	0			1
AHR 125 HVAC Electronics	1	3			2
AHR 140 All Weather Systems	1	3			2
AHR 211 Residential System Design	2	2			3
AHR 220 Commercial Building Codes	1	2			2
CIS 111 Basic PC Literacy	1	2			2

General Education Core Requirements

MAT 115 Mathematical Models	2	2			3
ENG 111 Expository Writing	3	0			3
Total Credit Hours					**47**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Air Conditioning, Heating, and Refrigeration Technology Certificates (C35100)

Specialization Certificates

The certificates listed below can be earned in the Air Conditioning, Heating, and Refrigeration (A35100) program.

For More Information

For more information, call the Program Chair at 704- 330-4446 or the Technical Careers Division at 704- 330-4445, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Air Conditioning, Heating, and Refrigeration Technology With A Specialization in Heating Service (C35100-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 112 Heating Technology	2	4			4
AHR 220 Commercial Building Code	1	2			2
BPR 130 Blue Print Reading/Const.	1	2			2
Student must choose one (1) course from the following:					
AHR 180 HVACR Customer Relations	1	0			1
COE 111 Co-op Work Experience I	0	0		10	1
Total Credit Hours					**17**

Air Conditioning, Heating, and Refrigeration Technology With A Specialization in Air Conditioning Service (C35100-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3

AHR 113 Comfort Cooling	2	4			4
BPR 130 Blue Print Reading/Const.	1	2			2
AHR 220 Commercial Building Codes	1	2			2
Student must choose one (1) of the following:					
AHR 180 HVACR Customer Relations	1	0			1
COE 111 Co-op Work Experience I	0	0		10	1
Total Credit Hours					**17**

Air Conditioning, Heating, and Refrigeration Technology With A Specialization in All Weather Systems Service (C35100-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BPR 130 Blue Print Reading/Const.	1	2			2
AHR 114 Heat Pump Technology	2	4			4
AHR 125 HVAC Electronics	1	3			2
AHR 130 HVAC Controls	2	2			3
AHR 140 All Weather Systems	1	3			2
AHR 180 HVACR Customer Relations	1	0			1
AHR 220 Commercial Building Codes	1	2			2
Total Credit Hours					**16**

Architectural Technology (A40100)

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government.

Degree Awarded

The Associate of Applied Science Degree - Architectural Technology is awarded by the College upon completion of this program.

General Information

The curriculum at Central Piedmont Community College includes emphasis on computer-aided drafting (CAD) and related computer courses to prepare graduates for employment in the expanding CAD area within the field of Architectural Technology.

For More Information

For more information, call the admissions counselor 704-330-6463 or 704-330-6881 or the Program chair at 704- 330-6548 weekdays, 8:00 a.m. - 5:00 p.m.

Admissions

- A High School Diploma or equivalent is required.
- CPCC Placement tests are required in English and mathematics. Advancement Studies for math and English classes are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students should see a faculty advisor before registration.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ARC 111 Intro to Arch Technology	1	6	0	0	3
ARC 112 Construction Matls & Methods	**3**	**2**	**0**	**0**	**4**
ARC 113 Residential Arch Tech	1	6	0	0	3
ARC 114 Architectural CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 131 Building Codes	2	2	0	0	3
ARC 132 Specifications and Contracts	2	0	0	0	2
ARC 133 Constr Doc Analysis	1	3	0	0	2
ARC 212 Commercial Constr Tech	1	6	0	0	3
ARC 213 Design Project	2	6	0	0	4
ARC 220 Adv Architect CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 221 Architectural 3-D CAD (AutoCAD or MicroStation)	1	4	0	0	3
ARC 230 Environmental Systems	3	3	0	0	4
ARC 250 Survey of Architecture	**3**	**0**	**0**	**0**	**3**
CIV 110 Statics/Strength of Materials	2	6	0	0	4
CIV 220 Basic Structural Concepts	1	3	0	0	2
PHY 110 Conceptual Physics	3	0	0	0	3
PHY 110A Conceptual Physics Lab	0	2	0	0	1
Technical Electives					
(To be selected from list below)					3
ARC 160 Residential Design	1	6	0	0	3
ARC 191 Selected Topics in Architectural Technology	0-1	0-3	0	0	1
ARC 192 Selected Topics in Architectural Technology	0-2	0-6	0	0	2
ARC 196 Seminar in Architectural Technology	0-1	0-3	0	0	1
ARC 197 Seminar in Architectural Technology	0-2	0-6	0	0	2
ARC 231 Arch Presentations	2	4	0	0	4
ARC 240 Site Planning	2	2	0	0	3
ARC 262 Arch Animation & Video (AutoCAD or MicroStation)	1	6	0	0	3
COE 112 Co-op Work Experience I	0	0	0	20	2
MAT 223 Applied Calculus	2	2	0	0	3
General Education Core Requirements					
ENG 111 Expository Writing	**3**	**0**	**0**	**0**	**3**
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Intro to Communication	3	0	0	0	3
MAT 121 Algebra/TRIG. I	**2**	**2**	**0**	**0**	**3**
MAT 122 Algebra/TRIG. II	2	2	0	0	3
Students must choose three (3) credit hours from the list of approved humanities/fine arts courses listed at the end of this section of the catalog.	3	0	0	0	3
Students must choose three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					21
Total Credit Hours					**72**

Architectural Technology Certificate (C40100)

Specialization Certificates

Architectural Technology Certificate With A Specialization in Computer Aided Design/Drafting (C40100-C1)

This certificate prepares individuals for CAD drafting positions within the field of Architecture. Course work includes work in basic architectural drafting techniques, reading construction documents, 2D and 3D CAD drawing, rendering, modeling, animation and video of building interiors and exteriors. This certificate will be earned in either AutoCAD or MicroStation.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ARC 111 Intro to Arch Technology	1	6	0	0	3
ARC 114 Architectural CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 220 Adv Architect CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 221 Architectural 3-D CAD (AutoCAD or MicroStation)	1	4	0	0	3
ARC 133 Constr Doc Analysis	1	3	0	0	2
ARC 262 Arch Animation & Video (AutoCAD or MicroStation)	1	6	0	0	3
Total Credit Hours					**15**

Architectural Technology Certificate With A Specialization in Residential Architectural Technology (C40100-C2)

Graduates from this certificate should be able to provide support to the residential architectural design industry.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ARC 111 Intro to Arch Technology	1	6	0	0	3
ARC 133 Constr Doc Analysis	1	3	0	0	2
ARC 113 Residential Arch Tech	1	6	0	0	3
ARC 114 Architectural CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 160 Residential Design	1	6	0	0	3
ARC 197 Seminar in Arch Tech	2	0	0	0	2
Total Credit Hours					**15**

Autobody Repair Diploma (D60100)

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

Diploma Awarded

A Diploma in Autobody Repair is awarded by the College upon completion of this program.

Note

Students must furnish required hand tools, textbooks, respirator, and protective clothing. A list of these items can be obtained from an instructor or the Program Chair. Call 704-330-6938 for a list.

For More Information

The Autobody Repair program is in the Transport Systems Technologies Division. For more information, call the Program Chair - 704- 330-6938, or the Division office at 704- 330-6220 weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 111 Painting and Refinishing I	2	6			4
AUB 112 Painting and Refinishing II	2	6			4
AUB 114 Special Finishes	1	2			2
AUB 121 Non-Structural Damage I	1	4			3
AUB 122 Non-Structural Damage II	2	6			4
AUB 131 Structural Damage I	2	4			4
AUB 132 Structural Damage II	2	6			4
AUB 134 Autobody MIG Welding	1	4			3
AUB 136 Plastics and Adhesives	1	4			3
AUB 141 Mechanical and Electrical Components I	2	2			3
AUB 162 Autobody Estimating	1	2			2

Major Electives:

Students may select one course from the following:

COE 112 Co-op Work Experience I	0	0		20	2
COE 113 Co-op Work Experience I	0	0		30	3

General Education Core Requirements

ENG 101 Applied Communications	3	0			3
MAT 101 Applied Math	2	2			3
OR					
MAT 115 Mathematical Models	2	2			3
Total Credit Hours					**42-44**

Auto Body Repair Certificates (C60100)

Specialization Certificates

The certificates listed below can be earned in the Autobody Repair (D60100) program.

For More Information

For more information, call the Program Chair at 704- 330-6938 or the Transport Systems Technologies Division at 704-330-6220, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.

- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Auto Body Repair Certificate With a Specialization in Refinishing (C60100-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 111 Painting and Refinishing I	2	6			4
AUB 112 Painting and Refinishing II	2	6			4
AUB 114 Special Finishes	1	2			2
AUB 136 Plastics and Adhesives	1	4			3
Total Credit Hours					**13**

Auto Body Repair Certificate With a Specialization in Auto Body Repair (C60100-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 121 Non-Structural Damage I	1	4			3
AUB 122 Non-Structural Damage II	2	6			4
AUB 131 Structural Damage I	2	4			4
AUB 132 Structural Damage II	2	6			4
AUB 134 Autobody MIG Welding	1	4			3
Total Credit Hours					**18**

Auto Body Repair Certificate With a Specialization in Auto Body Estimating (C60160-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 131 Structural Damage I	2	4			4
AUB 132 Structural Damage II	2	6			4
AUB 162 Auto Body Estimating	1	2			2
COE 110 World of Work	1	0		10	1
Total Credit Hours					**11**

Automotive Systems Technology (A60160)

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Degree Awarded

The Associate in Applied Science Degree -Automotive Systems Technology is awarded by the College upon completion of this program.

Program Accreditation

This program is Master Certified by the National Institute for Automotive Service Excellence (A.S.E.).

Program Manufacturer Partners

The Daimler-Chrysler Apprenticeship Program (CAP), General Motors' Automotive Service Excellence Program (ASEP), and Toyota's Technical Education Network (T-TEN) are options for this associate degree program. Call the Transport Systems Division Cooperative Education Coordinator at 704-330-6919 or division office 704-330-6220 for manufacturer program information.

Note

Students must furnish required hand tools and protective clothing, as well as textbooks. A list of these items can be obtained from an instructor or Program Chair by calling 704-330-6023.

For More Information

The Automotive Systems Technology program is in the Transport Systems Technologies Division. For more information, call the Program Chair at 704- 330-6023 or the Division office at 704- 330-6220, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 141 Suspension and Steering Systems	2	4			4
AUT 151 Brake Systems	2	2			3
AUT 164 Automotive Electronics	2	2			3
AUT 183 Engine Performance - Fuels	2	3			3
AUT 281 Advanced Engine Performance	2	2			3
AUT 115 Engine Fundamentals	2	3			3
AUT 161 Electrical Systems	2	6			4
AUT 171 Heating and Air Conditioning	2	3			3
AUT 231 Manual Drive/Trans/Axles	2	3			3
AUT 221 Automatic Transmissions	2	6			4
AUT 162 Chassis Electrical and Electronics	2	2			3
Students must select one from the following courses:					
AUT 110 Intro to Auto Tech	2	2			3
OR					
AUT 111 Basic Auto Tech	1	2			2
Students must select one from the following courses:					
CIS 111 Basic PC Literary	1	2			2
OR					

AUT 186 Automotive Computer Applications	1	2		2
Students must select 6–8 (SHC) from the following courses:				
AUT 152 Brake Systems Lab	0	2		1
AUT 184 Engine Perfor-Fuels Lab	0	3		1
AUT 113 Automotive Servicing	2	6		4
AUT 222 Adv Auto Drive Trains	2	2		3
AUT 232 Manual Dr Trains/ Axles Lab	0	3		1
COE 112 Co-op Work Experience I			20	2
COE 113 Co-op Work Experience I			30	3
COE 122 Co-op Work Experience II			20	2
COE 132 Co-op Work Experience III			20	2
COE 212 Co-op Work Experience IV			20	2
General Education Core Requirements				
ENG 111 Expository Writing	3			3
ENG 114 Professional Research and Reporting	3			3
MAT 115 Mathematical Models	2	2		3
Students must complete one from the following:				
COM 110 Introduction to Communications	3			3
COM 231 Public Speaking	3			3
COM 233 Persuasive Speaking	3			3
Students must complete one from the following:				
ART 111 Art Appreciation	3			3
MUS 110 Music Appreciation	3			3
HUM 115 Critical Thinking	3			3
(As an option, a student may choose a minimum of (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.)				
Students must complete one from the following:				
PSY 150 General Psychology	3			3
SOC 210 Introduction to Sociology	3			3
(As an option, a student may choose a minimum of (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.)				
Total Credit Hours				**66**

Automotive Systems Technology Diploma (D60160)

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Diploma Awarded

A diploma in Automotive Systems Technology is awarded by the College upon completion of this program.

Program Accreditation

This program is Master Certified by the National Institute for Automotive Service Excellence (A.S.E.).

Note

Students must furnish required hand tools and protective clothing, as well as textbooks. A list of these items can be obtained from an instructor or Program Chair by calling 704-330-6023.

For More Information

The Automotive Systems Technology program is in the Transport Systems Technologies Division. For more information, call the Program Chair at 704- 330-6023 or the Division office at 704- 330-6220, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.



Admissions

- Completion of a high school diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Choose 42 hours from Major and Related Course Requirements listed below:

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 141 Suspension and Steering Systems	2	4			4
AUT 151 Brake Systems	2	2			3
AUT 152 Brake Systems - Lab	0	2			1
AUT 164 Automotive Electronics	2	2			3
AUT 183 Engine Performance - Fuels	2	3			3
AUT 184 Engine Performance - Fuels Lab	0	3			1
AUT 281 Advanced Engine Performance	2	2			3
AUT 110 Introduction to Auto Technology OR	2	2			3
AUT 111 Basic Auto Tech	1	2			2
AUT 113 Automotive Servicing	2	6			4
AUT 115 Engine Fundamentals	2	3			3
AUT 161 Electrical Systems	2	6			4
AUT 171 Heating and Air Conditioning	2	3			3
AUT 231 Manual Drive/Trans/Axles	2	3			3
AUT 221 Automatic Transmissions	2	6			4
AUT 162 Chassis Electrical and Electronics	2	2			3
General Education Core Requirements					
ENG 111 Expository Writing	3				3
MAT 115 Mathematical Models	2	2			3
Total Credit Hours					**48**

Automotive Technology Certificates

Automotive Maintenance and Inspection Technician (C60160-C1)

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 110 Intro to Auto Tech	2	2			3
AUT 141 Suspension and Steering	2	4			4
AUT 151 Brake Systems	2	2			3
COE 112R Cooperative Work Exp. I	0	0			2
or					
COE 122R Cooperative Work Exp. II	0	0			2

or					
COE 132R Cooperative Work Exp. III	0	0			2
or					
COE 212R Cooperative Work Exp. IV	0	0			2

Automotive Electrical Systems, Chassis Electrical & Electronic and Automotive Electronics (C60160-C2)

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 161 Electrical Systems	2	6			4
AUT 162 Chassis Electrical/ Electronics	2	2			3
AUT 164 Automotive Electronics	2	2			3
COE 112R Cooperative Work Exp. I	0	0			2
or					
COE 122R Cooperative Work Exp. II	0	0			2
or					
COE 132R Cooperative Work Exp. III	0	0			2
or					
COE 212R Cooperative Work Exp. IV	0	0			2

Automotive Advanced Engine Performance, Heating, Air Conditioning (C60160-C3)

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 115 Engine Fundamentals	.				
AUT 183 Engine Performance – Fuels	2	3			3
AUT 281 Advanced Engine Performance	2	2			3
AUT 171 Heating and Air Conditioning	2	3			3
COE 112R Cooperative Work Exp. I	0	0			2
or					
COE 122R Cooperative Work Exp. II	0	0			2
or					
COE 132R Cooperative Work Exp. III	0	0			2
or					
COE 212R Cooperative Work Exp. IV	0	0			2

Automotive Automatic Manual Transmissions and Maintenance (C60160-C4)

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 110 Intro to Auto Tech	2	2			3
AUT 221 Automatic Transmissions	2	6			4
AUT 222 Auto Drive Trans	2	0			2
AUT 231 Manual Transmissions	2	3			3
COE 112R Cooperative Work Exp. I	0	0			2
or					
COE 122R Cooperative Work Exp. II	0	0			2
or					
COE 132R Cooperative Work Exp. III	0	0			2
or					
COE 212R Cooperative Work Exp. IV	0	0			2

Basic Law Enforcement Training (C55120)

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State-commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcoholic beverage laws; physical training; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations.

Students successfully completing a Basic Law Enforcement Training course accredited by the North Carolina Criminal Justice Education and Training Standards Commission and adopted by the North Carolina Sheriff's Education and Training Standards Commission will receive credit for 16 hours {CJC 131 Criminal Law, CJC 132 Court Procedure & Evidence and CJC 221 Investigative Principles, CJC 231 Constitutional Law, and CJC 232 Civil Liability} toward the Associate in Applied Science degree in Criminal Justice Technology. In order to successfully complete BLET, the student must successfully complete the Criminal Justice Education and Training Standards Commission's comprehensive certification examination.

For More Information

This program is part of the Public Safety Division. For more information, call 704- 330-4108, weekdays from 8:00 a.m.-4:30 p.m. Program location is the North Campus.

Admissions

- A physical exam (including an F-2 form to be completed by a physician and an F-1 form to be completed by the student)
- 20 years of age (19-year-olds admitted if 20th birthday occurs during training)
- High School Graduate
- No criminal history to deny certification
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Business Administration (A25120)

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

Degree Awarded

The Associate in Applied Science - Business Administration is awarded by the College upon completion of this program.

For More Information

The Business Administration Program is in the Business and Accounting Division. Call 704- 330-6782 to talk to the Program Chair or 704- 330-6595/6646 to reach the division office. Call the Program Counselor at 704-330-6229. The program is available on Central Campus and South Campus.

Admissions

- A High School Diploma or equivalent is required.
- In order to be placed in English and mathematics courses, students must take computerized placement tests in reading, English and math.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting	3	2			4
ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3
BUS 116 Business Law II	3				3
BUS 135 Principles of Supervision	3				3
BUS 137 Principles of Management	3				3
BUS 153 Human Resource Management	3				3
BUS 228 Business Statistics	2	2			3
BUS 230 Small Business Management	3				3
BUS 255 Organizational Behavior in Business	3				3
CIS 111 Basic PC Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3
ISC 131 Quality Management	3				3
INT 110 International Business	3				3
MKT 120 Principles of Marketing	3				3
Technical Electives (Choose two courses from the following:)					
BUS 121 Business Mathematics	2	2			3
COE 113 Coop Work Experience I	0			30	3
MKT 224 International Marketing	3				3
BUS 225 Business Finance	3				3
INT 210 International Trade	3				3
INT 220 International Economics	3				3

General Education Core Requirements

COM 231 Public Speaking	3				3
ECO 252 Principles of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models OR MAT 161 College Algebra OR MAT 140 Survey of Mathematics	2	2			3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3				3
Total Credit Hours					**73**

Business Management Certificate (C25120)

Specialization Certificate

Business Administration Certificate with a Specialization in Business Management (C25120-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of business management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration.

For more information, call the Program Chair at 704- 330-6782 or the Program Counselor at 704-330-6229. The certificate program is offered on Central and South Campuses.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 110 Introduction to Business	3	0			3
BUS 137 Principles of Management	3	0			3
BUS 228 Business Statistics	2	2			3
BUS 230 Small Business Management	3	0			3
BUS 255 Organizational Behavior	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**18**

Business Administration Human Resources Management Concentration (A2512C)

(Pending Approval)

Human Resources Management is a concentration under the curriculum title of Business Administration. The curriculum is designed to meet the demands of business and service agencies. The objective is the development of generalists and specialists in the administration, training and management of human resources.

Course work includes studies in management, interviewing, placement, needs assessment, planning, compensation and benefits, and training techniques. Also included are topics such as people skills, learning approaches, skills building, and development of instructional and training materials.

Graduates from this program will have a sound business educational base for life-long learning. Students will be prepared for employment opportunities in personnel, training, and other human resources development areas.

Degree Awarded

The Associate in Applied Science - Business Administration - Human Resources Management is awarded by the College upon completion of this program.

For More Information

The Human Resources Management Program is in the Business and Accounting Division. Call 704-330-6595/6646 to reach the division office. Call the Program Counselor at 704/330-6229.

Admissions

A High School Diploma or equivalent is required.

In order to be placed in English and mathematics courses, students must take computerized placement tests in reading, English and math.

A counseling/orientation appointment follows placement testing.

Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2			4
ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3
BUS 137 Principles of Management	3				3
BUS 153 Human Resource Management	3				3
BUS 217 Employment Laws & Regulations	3				3
BUS 228 Business Statistics	2	2			3
BUS 234 Training and Development	3				3
BUS 252 Labor Relations	3				3
BUS 255 Organizational Behav/Business	3				3
BUS 256 Recrt, Selct & Pers Planning	3				3
BUS 258 Compensation and Benefits	3				3
BUS 259 HRM Applications	3				3
CIS 111 Basic Computer Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3
Technical Electives (Choose two (2) courses from the following:)					
BUS 116 Business Law II	3				3
BUS 135 Principles of Supervision	3				3
COE 113B Cooperative Work Experience				30	3
INT 110 International Business	3				3
MKT 120 Principles of Marketing	3				3

General Educational Core Requirements

COM 231 Public Speaking	3				3
ECO 252 Principles of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research & Rept'g	3				3
MAT 115 Mathematical Models OR MAT 140 Survey of Mathematics OR MAT 161 College Algebra	2	2			3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3				3
Total Credit Hours					**73**

Human Resources Generalist Certificate (C2512C)

(Pending Approval)

Specialization Certificate

Business Administration Certificate with a Specialization in Human Resources Generalist (C2512C-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of human resources management. Upon completion of the required courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration - Human Resources Management.

For more information, call the Division Office at 704/330-6595/6646.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 137 Principles of Management	3				3
BUS 153 Human Resources Management	3				3
BUS 256 Recruiting, Selection and Personnel Planning	3				3
BUS 258 Compensation and Benefits	3				3
BUS 228 Business Statistics	2	2			3
MAT 161 College Algebra OR MAT 140 Survey of Mathematics OR MAT 115 Mathematical Models	3				3
Total Credit Hours					**18**

Human Resources Management Labor Relations Certificate (C2512C)

(Pending Approval)

Specialization Certificate

Business Administration Certificate with a specialization in Human Resources Management Labor Relations (C2512C-C2)

Prerequisite: Must have completed C2512C-C1

This certificate is designed to provide the student with a compact course of study in the field of human resources management with a concentration in labor relations. Upon completion of the required courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration --Human Resources Management.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 217 Employment Laws and Regulations	3				3
BUS 234 Training and Development	3				3
BUS 252 Labor Relations	3				3
BUS 259 HRM Applications	3				3
BUS 255 Organizational Behavior in Business	3				3
COM 231 Public Speaking	3				3
Total Credit Hours					**18**

Business Administration International Business Concentration (A2512D)

International Business is a concentration under the curriculum title of Business Administration. This curriculum prepares individuals for positions in international business through studies in business, social science, foreign language, and specialized courses in international marketing, law, economics, and trade

practices.

Students will be expected to demonstrate language skills; a knowledge of geographic, political, and cultural differences; the ability to process import/export documentation; and a knowledge of international economics and business practices.

Employment opportunities are available in import/export departments, freight-forwarder companies, customs house brokerage firms, international banking, state and federal government organizations, world organizations, and other internationally active businesses.

Degree Awarded

The Associate in Applied Science Degree - Business Administration – International Business is awarded by the College upon completion of this program.

A Certificate in International Business is also available upon completion of 18 credit hours of specified required courses.

For More Information

The International Business Program is in the Business and Accounting Division. For more information, call the Program Chair at 704- 330-6782 or the division office at 704-330-6595/6646. The Program Counselor can be reached by calling 704- 330-6229.

Admissions

- A High School Diploma or equivalent is required.
- In order to be placed in English and mathematics courses, students must take computerized placement tests in reading, English and math.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2			4
ACC 270 International Accounting	3				3
BUS 115 Business Law I	3				3
BUS 137 Principles of Management	3				3
CIS 111 Basic PC Literacy	2				2
COM 140 Intercultural Communication	3				3
ECO 252 Principles of Macroeconomics	3				3
GEO 111 World Regional Geography	3				3
INT 110 International Business	3				3
INT 210 International Trade	3				3
INT 220 International Economics	3				3
INT 230 International Law	3				3
MKT 120 Principles of Marketing	3				3
MKT 224 International Marketing	3				3
Language	3				3
Lab	0	2			1

(Choose one language with lab: FRE 112, FRE 182; GER 112, GER 182; SPA 112, SPA 182)

Technical Electives

(Choose one course from the following)

ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 116 Business Law II	3				3
COE 113 Co-op Work Experience I	0			20	3
INT 180 Travel Study Abroad	3				3
BUS 230 Small Business Management	3				3
Language	3				3
Language Lab	0	2			1

(Choose one language with lab: FRE 211, FRE 281; GER 211, GER 281; SPA 211, SPA 281)

General Education Core Requirements

COM 231 Public Speaking	3				3
ECO 251 Principles of Microeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models	2	2			3
OR					
MAT 140 Survey of Mathematics					
OR					
MAT 161 College Algebra					
Language	3				3
Language Lab	0	2			1

(Choose one language with lab: FRE 111, FRE 181; GER 111, GER 181; SPA 111, SPA 181)

Total Credit Hours **68 / 69**

International Business Certificate (C2512D)

Specialization Certificate

Business Administration Certificate With A Specialization in International Business (C2512D-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of International Business. Upon completion of the six courses, a certificate will be awarded by the College. This certificate may be applied toward the Associate Degree in Business Administration with a concentration in International Business.

For more information, call the Program Chair at 704- 330-6782.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
INT 110 International Business	3				3
INT 210 International Trade	3				3
BUS 137 Principles of Management	3				3
MKT 224 International Marketing	3				3
GEO 111 World Regional Geography	3				3
COM 140 Intercultural Communication	3				3
Total Credit Hours					**18**

Business Administration Marketing and Retailing Concentration (A2512F)

Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing.

Course work includes: marketing, retailing, merchandising, selling, advertising, computer technology, and management.

Graduates should qualify for marketing positions within

manufacturing, retailing, and service organizations.

Degree Awarded

The Associate in Applied Science Degree - Business Administration – Marketing and Retailing is awarded by the College upon completion of this program.

A certificate in Marketing and Retailing is also available upon completion of 18 hours of required courses.

For More Information

The Marketing and Retailing Program is in the Business and Accounting Division. For more information, call the Program Chair at 704- 330-6529 or the division office at 704- 330-6595/6646. The Program Counselor can be reached by calling 704- 330-6229.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests in English, mathematics and reading determine enrollment in English and mathematics courses.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3
BUS 137 Principles of Management	3				3
ECO 252 Principles of Macroeconomics	3				3
MKT 120 Principles of Marketing	3				3
MKT 121 Retailing	3				3
MKT 122 Visual Merchandising	3				3
MKT 123 Fundamentals of Selling	3				3
MKT 220 Advertising and Sales Promotion	3				3
MKT 221 Consumer Behavior	3				3
MKT 223 Customer Service	3				3
MKT 224 International Marketing	3				3
MKT 225 Marketing Research	3				3
MKT 227 Marketing Applications	3				3
Technical Electives					
(Choose one course from the following:)					
BUS 116 Business Law II	3				3
BUS 153 Human Resource Management	3				3
COE 113 Co-op Work Experience 1	3				3
INT 110 International Business	3				3
MKT 228 Service Marketing	3				3
MKT 230 Public Relations	3				3
BUS 121 Business Math	2	2			3
BUS 255 Organizational Behavior	3				3
General Education Core Requirements					
CIS 111 Basic PC Literacy	2				2
COM 231 Public Speaking	3				3
ECO 251 Principles of Microeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
BUS 228 Business Statistics OR					
MAT 155 Statistical Analysis	3				3
MAT 115 Mathematical Models OR					
MAT 140 Survey of Mathematics OR					
MAT 161 College Algebra	3				3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3				3
Total Credit Hours					**72**

Marketing and Retailing Certificate (C2512F)

Specialization Certificate

Business Administration Certificate With A Specialization in Marketing and Retailing (C2512F-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of Marketing and Retailing. Upon completion of the six courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Business Administration with a concentration in Marketing and Retailing.

For more information, call the Program Chair at 704- 330-6529.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MKT 120 Principles of Marketing	3				3
MKT 121 Retailing	3				3
MKT 123 Fundamentals of Selling	3				3
MKT 220 Advertising and Sales Promotion	3				3
MKT 221 Consumer Behavior	3				3
MKT 227 Marketing Applications	3				3
Total Credit Hours					**18**

Customer Service Certificate (C2512F)

Specialization Certificate

Business Administration Certificate With A Specialization in Customer Service (C2512F-C2)

This certificate is designed to provide the student with a concentrated course of study in the field of Customer Service. Upon completion of six of these courses, a certificate will be awarded by the College. The certificate may be applied toward the Associate Degree in Business Administration.

For more information, call the Program Chair at 704-330-6529.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MKT 223 Customer Service	3	0			3
CIS 110 Introduction to Computers OR	2	2			3
CIS 111 Basic PC Literacy	1	2			2
BUS 255 Organizational Behavior	3	0			3
(Choose one course from the following)					
COM 231 Public Speaking	3	0			3
ENG 111 Expository Writing	3	0			3
(Choose two courses from the following)					
MKT 123 Fundamentals of Selling	3	0			3
MKT 221 Consumer Behavior	3	0			3
MKT 228 Service Marketing	3	0			3

BUS 121 Business Math	2	2			3
Total Credit Hours					**18**

Optional Courses

COE 110 World of Work	1	0		0	1
COE 113 Co-op Work Experience I	0	0		30	3

Business Administration Operations Management Concentration (A2512G)

Operations Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries.

Emphasized are analytical reasoning, problem solving, and continuous improvement concepts required in today's dynamic business and industry environments. Concepts include quality, productivity, organizational effectiveness, financial analysis, and the management of human, physical, and information resources.

Graduates should qualify for leadership positions or enhance their professional skills in supervision, team leadership, operations planning, quality assurance, manufacturing and service management, logistics/distribution, health and safety, human resources management, and inventory/materials management.

Degree Awarded

The Associate in Applied Science Degree - Business Administration — Operations Management is awarded by the College upon completion of this program.

For More Information

The Operations Management Program is in the Business and Accounting Division. For more information, call the Program Chair: 704- 330-6529 or division office 704- 330-6595/6646.

Admissions

- A High School diploma or equivalent is required.
- In order to be placed in English and math courses, students must take computerized placement tests in reading, English and math.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting	3	2			4
ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3
BUS 137 Principles of Management	3				3
BUS 228 Business Statistics	2	2			3
CIS 111 Basic PC Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3
INT 110 International Business	3				3
ISC 121 Environmental Health and Safety	3				3
ISC 131 Quality Management	3				3
ISC 210 Operations and Production Planning	3				3
BUS 255 Organizational Behavior	3	0			3
MKT 120 Principles of Marketing	3				3
OMT 112 Materials Management	3				3
OMT 260 Issues in Operations Management	3				3

Technical Electives

(Choose two courses from the following:)	6				6
BUS 220 Purchasing	3				3
BUS 135 Principles of Supervision	3				3
OR					
MKT 223 Customer Service	3				3
MKT 224 International Marketing	3				3
COE 113 Co op Work Experience 1	0			30	3

General Education Core Requirements

COM 231 Public Speaking	3				3
ECO 252 Principle of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models	2	2			3
OR					
MAT 140 Survey of Mathematics	3				3
OR					
MAT 161 College Algebra					
Students must choose three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3				3
Total Credit Hours					**73**

Operations Management Certificate (C2512G)

Specialization Certificate

Business Administration Certificate With A Specialization in Operations Management (C2512G-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of operations management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration concentrating in Operations Management.

For more information, call the Program Chair at 704- 330-6529.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 110 Introduction to Business	3	0			3
BUS 137 Principles of Management	3	0			3
BUS 228 Business Statistics	2	2			3
ISC 210 Operations and Production Planning	3	0			3
OMT 112 Materials Management	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**18**

Cardiovascular Technology (A45170)

Cardiovascular Technology is an allied health career which prepares individuals to develop technical and cognitive skills necessary to perform procedures leading to diagnosis and treat-

ment of cardiovascular heart disease.

Course work emphasizes technical skill development with application of concepts of echocardiography, exercise stress testing, electrocardiography, cardiac catheterization, blood gases, electrophysiology, and anatomy and physiology.

Graduates selecting the non-invasive track may be eligible for the Cardiovascular Technology Registry. Graduates selecting the invasive track may be eligible for the Invasive Registry to become a Registered Cardiovascular Invasive Specialist.

Degree Awarded

The Associate in Applied Science Degree - Cardiovascular Technology is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, safety glasses/goggles, face shields, a physical examination including immunizations such as tetanus toxoid, Hepatitis B vaccination, TB test, blood tests (i.e. VDRL, Rubella titer, Rubeola titer, etc.), CPR certification and annual recertification, and fees for applications for National Exams.

The student must provide a certificate of personal health and accident insurance.

By the end of the first semester of acceptance into the Cardiovascular Technology Program, the student is required to demonstrate computer competency through other coursework or testing. Courses recommended are CIS 110 or CIS 111. The Division Director of Computer and Office Information System will determine equivalent competency. This requirement may be met prior to entering the program.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

The Cardiovascular Technology program is in the Health Sciences Division. For more information, call Health Sciences Division at 704/330-6725, weekdays from 8:00 am - 5:00 pm. Program Counselors can be reached by calling 704-330-6500, 6443, or 6159.

Admission

- Complete CPCC application.
- Pick up copy of CVT admission information.
- Many courses have prerequisites or corequisites; check the Course Description section for details.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies with a C or better.
- Applicant must also present evidence of good physical and mental health.
- Complete high school or college level Chemistry with "C" or better verified by transcript within the last 10 years. If no Chemistry, enrollment in (CHM 090 or CHM 115 or CHM 115A, or CHM 121 and CHM 121A.). If outdated enrolled in one of above courses.
- If have taken BIO 163 Anatomy and Physiology must be current within last 10 years. If outdated, course must be retaken.

Note:

All students enrolled in the Cardiovascular Technology program will take the same courses for the first year. At the end of the summer term of the first year, students will make a decision to take the invasive or non-invasive tract. The courses for the invasive are marked by an asterisk (*); the non-invasive courses are marked by a double asterisk (**) for the second year. All courses not marked by an asterisk both tracts must take.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
NCT 113 Electrophysiology	1	3	0		2
ICT 114 Cardiovascular I	1	3	0		2
NCT 123 Electrophysiology II	2	2	0		3
ICT 124 Cardiovascular II	2	2	0		3
ICT 136 Cardiovascular Physiology	2	2	0		3
NCT 133 Noninvasive Cardiovascular Fundamentals	2	2	0		3
ICT 133 Invasive Cardiovascular Fundamentals	2	2	0		3
NCT 142 Noninvasive Cardiovascular Clinical Prep	2	2	0		3
NCT 143 Noninvasive Cardiovascular Clinical Obs.	2	2	0		3
**NCT 141 Computers for Cardiovascular Tech.	2	2	0		3
**NCT 253 Echocardiography I	2	2	0		3
**NCT 251 Echocardiography Clinical I	0	0	6		2
**NCT 261 Echocardiography Clinical II	0	0	12		4
**NCT 263 Echocardiography II	2	2	0		3
**NCT 273 Echocardiography Clinical III	0	0	15		5
*ICT 144 Cardiac Catheterization I	2	2	0		3
*ICT 214 Cardiac Catheterization II	2	3	6		5
*ICT 224 Cardiac Catheterization III	2	3	6		5
*ICT 234 Cardiac Catheterization IV	0	0	15		5
BIO 163 Basic Anatomy and Physiology	4	2	0		5
CHM 130 General Organic and Biochemistry	3	0	0		3
CHM 130A General Organic and Biochemistry Lab	0	2	0		1
PHY 110 Conceptual Physics	3	0	0		3
PHY 110A Conceptual Physical Lab	0	2	0		1

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Writing	3	0	0		3
MAT 161 College Algebra	3	0	0		3
PSY 150 General Psychology	3	0	0		3
COM 231 Public Speaking **OR** COM 233 Persuasive Speaking	3	0	0		3

Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at end of this section of the catalog.

Total Credit Hours:

—Invasive Tract **74**

—Non-Invasive Tract **76**

Compressed Degree (Associates in Art)

The Compressed Degree is an intense evening program designed to take a working individual through the Associate in Arts degree program in two years or less. The candidate should be a good, mature student with a will to succeed. The student needs to score well on the CPCC entrance test.

Compressed Degree classes are taught in the evening in eight-week segments, and students carry a maximum of only two classes at any given time. During Fall and Spring semesters,

students can earn at least 12 semester hour credits by taking two courses during each eight-week segment of these 16-week semesters. Students can earn 8 semester hour credits during Summer Semester. All classes operate on CPCC's published Fall, Spring, and Summer academic schedule.

If you have college credit hours that will transfer to CPCC, or you are already a student here, your hours will be matched against the A.A. degree requirements, which may allow you to graduate through the Compressed Associate in Arts Degree Evening Program in less than two years.

For more information

Advisement is offered for this program by contacting Dianne Cates at (704) 330-6946.

The following is the Compressed degree program course schedule: *(as resources allow).*

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
Fall Semester - First 8 weeks					
ENG 111 Expository Writing	3	0			3
CIS 110 Introduction to Computers	2	2			3
OR					
SPA 111 Elementary Spanish I	3	0			3
SPA 181 Spanish Lab I	0	2			1
POL 120 American Government	3	0			3
Fall Semester - Second 8 weeks					
ENG 113 Literature-Based Research	3	0			3
MUS 110 Music Appreciation	3	0			3
OR					
SPA 112 Elementary Spanish II	3	0			3
SPA 182 Spanish Lab II	0	2			1
PSY 150 General Psychology	3	0			3
Spring Semester - First 8 weeks					
ECO 151 Survey of Economics	3	0			3
MAT 161 College Algebra	3	0			3
OR					
HIS 131 American History I	3	0			3
SOC 210 Introduction to Sociology	3	0			3
Spring Semester - Second 8 weeks					
ART 111 Art Appreciation	3	0			3
HIS 111 World Civilization I	3	0			3
OR					
COM 110 Introduction to Communication	3	0			3
ENG 232 American Literature II	3	0			3
Summer Semester					
BIO 110 Principles of Biology	3	3			4
HEA 110 Personal Health/Wellness	3	0			3
OR					
GEL 120 Physical Geology	3	2			4
MAT 155 Statistical Analysis	3	0			3
Mat 155A Statistical Analysis Lab	0	2			1
Total Credit Hours					**65**

Civil Engineering Technology (A40140)

The Civil Engineering Technology curriculum provides the application of relevant theory of engineering needed by technicians to carry out planning and supervisory tasks in the construction of transportation systems, residential and commercial buildings, bridges, dams, and water and wastewater treatment systems.

Coursework includes the communication and computational skills required to support the fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology, and surveying. Additional coursework will cover the operation of computers and application software including computer-aided drafting.

Graduates should qualify for technician level jobs with both public and private engineering, construction, and surveying agencies.

Degree Awarded

The Associate in Applied Science Degree - Civil Engineering Technology - will be awarded by the College upon completion of this program.

For More Information

Civil Engineering Technology is in the Engineering Technologies Division. For more information, call the Program Counselor at 704- 330-6463 or 704-330-6881 or the Program chair at 704- 330-6578, weekdays from 8:00 a.m. - 5:00 p.m.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English and Mathematics. Advancement Studies classes in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first if at all possible.
- Students should see a faculty advisor before registration.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Note

Students who do not take program-related courses for a one-year period must reenter the program under the Catalog in effect at the time of reentry.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 111 Basic PC Literacy	**1**	**2**	**0**	**0**	**2**
CIV 111 Soils and Foundations	2	3	0	0	3
CIV 210 Engineering Materials	1	3	0	0	2
CIV 211 Hydraulics and Hydrology	2	3	0	0	3
CIV 110 Statics/Strength of Materials	2	6	0	0	4
CIV 125 Civil/Surveying CAD	1	6	0	0	3
CIV 221 Steel and Timber Design	2	3	0	0	3
CIV 222 Reinforced Concrete	2	3	0	0	3
CIV 230 Construction Estimating	2	3	0	0	3
CIV 240 Project Management	2	3	0	0	3
EGR 115 Intro to Technology	**2**	**6**	**0**	**0**	**4**
SRV110 Surveying I	**2**	**6**	**0**	**0**	**4**
SRV 111 Surveying II	2	6	0	0	4
Technical Electives (To be selected from list below.)					7
					48
Technical Electives					
CIV 192 Selected Topics in Civil Engineering Technology	1	3	0	0	2
CIV 198 Seminar in Civil Engineering Technology	2	3	0	0	3
CIV 212 Environmental Planning	2	3	0	0	3
CIV 215 Highway Technology	1	3	0	0	2
CIV 250 Civil Tech Project	1	3	0	0	2
COE 112 Co-op Work Experience 1	0	0	0	20	2
CSC 132 Basic Programming	2	3	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 132 Physics-Elec					

& Magnetism	3	2	0	0	4
General Education Core Requirements					
ENG 111 Expository Writing	**3**	**0**	**0**	**0**	**3**
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Intro to Communication	3	0	0	0	3
MAT 121 Albebra/Trigonometry I	**2**	**2**	**0**	**0**	**3**
MAT 122 Albebra/Trigonometry II	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0	0	3
Students must choose a minimum (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					25
Total Credit Hours					**73**

Civil Engineering Technology Certificate (C40140)

Specialization Certificate

Civil Engineering Technology Certificate With A Specialization In Construction Materials Testing (C40140-C1)

This certificate prepares individuals to enter the Materials Testing Career in the Construction Industry.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 111 Basic PC literacy	1	2	0	0	2
EGR 115 Intro to Technology	2	6	0	0	4
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
CIV 110 Statics/Strength of Materials	2	6	0	0	4
CIV 111 Soils and Foundations	2	3	0	0	3
CIV 210 Engineering Materials	1	3	0	0	2
Total Credit Hours					**18**

Computer Engineering Technology (A40160)

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Course work includes mathematics, physics, electronics, digital circuits and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Degree Awarded

The Associate in Applied Science Degree - Computer Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Computer Engineering Technology program at Central Piedmont Community College is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

The Computer Engineering Technology program prepares students with skills and knowledge in both hardware and software aspects of computers and related systems. It provides a comprehensive background in the practical application of both computer and electronic circuits from the component to the system level. Courses are designed to present technical content in an order that provides students with progressive levels of job-related skills and knowledge. From fundamental programming and electrical circuits, students advance to specialized courses in computer circuits, microprocessors, microcomputer system design, software development, computer maintenance, and installation and technical support of local area networks.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses.

Completion of the program requires that students use college-level algebra, trigonometry, and physics in the application of scientific principles to technological problems.

Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect at the time of re-entry.

Students in the Computer Engineering Technology (A40160) program, desiring to earn an additional degree in Electrical Engineering Technology (A40180) or Electronics Engineering Technology (A40200) must meet the course requirements of the additional degree, and in the process complete a minimum of 12 unduplicated required or elective semester hours credit.

For More Information

The Computer Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program chair at 704-330-6479, weekdays from 9 a.m.-5 p.m. The Program Counselor can be reached at 704-330-6463 or 704-330-6881.

Admission

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies classes in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CET 111 Computer Upgrade and Repair	2	3	0	0	3

ELC 131 DC/AC Circuit Analysis	4	3	0	0	5
ELN 131E Electronic Devices	3	3	0	0	4
ELN 133E Digital Electronics	3	3	0	0	4
ELN 232 Introduction to Microprocessors	3	3	0	0	4
CSC 133 C Programming	2	3	0	0	3
ELC 133 Advanced Circuit Analysis	2	3	0	0	3
ELN 132 Linear IC Applications	3	3	0	0	4
ELN 150 CAD for Electronics	1	3	0	0	2
ELN 233 Microcomputer Systems	3	3	0	0	4
ELN 237 Local Area Networks	2	3	0	0	3
Technical Electives (5 credit hours to be selected from the following courses)					44
ELN 260 Programmable Logic Controllers	3	3	0	0	4
CET 293 Selected Topics in C.E.T.	2	3	0	0	3
COE 112E Cooperative Work Experience I	0	0	0	20	2
COE 122E Cooperative Work Experience II	0	0	0	20	2
ELC 213 Instrumentation	3	2	0	0	4
ELN 234 Communication Systems	3	3	0	0	4
ELN 236 Fiber Optics and Lasers	3	2	0	0	4
ELN 238 Advanced LANs	2	3	0	0	3
ELN 247 Electronics Applications Project	1	3	0	0	2
ELN 275 Troubleshooting	1	2	0	0	2
CIS 110 Introduction to Computers	2	2	0	0	3
General Education Core Requirements					
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
COM 110 Introduction to Communications	3	0	0	0	3
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
PHY 132 Physics-Electricity and Magnetism	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					32
Total Credit Hours					**76**

Computer Engineering Technology Certificate (C40160-C1)

Specialization Certificate

The certificate listed below can be earned in the Computer Engineering Technology (C40160) Program.

More Information

For more information, call the Program Chair at 704-330-5496, or the Information Technology Office at 704-330-6549, weekdays from 8:00 Am - 5:00 PM. Program Counselors can be reached by calling 704-330-6881 or 6463

Admissions

High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced math. Skills and proficiencies should be developed in writing, computer literacy, and science.

CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.

A counseling/orientation appointment follows placement testing.

Computer Engineering Technology with a Specialization in Microprocessor Systems (C40160-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 133C Programming	2	3			3
ELN 232 Introduction to Microprocessors	3	3			4
ELN 233 Microcomputer Systems	3	3			4
ELN 154 Intro to Data Communications	2	3			3
Total Credit Hours					**14**

Computer Programming (A25130)

The Computer Programming curriculum is designed to prepare individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provides the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

Degree Awarded

The Associate in Applied Science Degree in Computer Programming is awarded by the College upon completion of this program.

For More Information

The Computer Programming program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6463 or 704-330-6881, the Program Chair 704-330-6879, a Program Advisor at 704-330-6239 / 6903 / 6460, or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to Computers	**2**	**2**			**3**
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CSC 135 COBOL Programming	**2**	**3**			**3**
CIS 152 Database Concepts and Applications	2	2			3
NET 110 Data Communication/ Networking	2	2			3
ACC 120 Principles of Accounting I	3	2			4
CSC 235 Advanced COBOL	2	3			3
CSC 138 RPG Programming	2	3			3
CSC 238 Advanced RPG	2	3			3
CIS 286 System Analysis and Design	3	0			3
CSC 244 CICS	4	2			5
CIS 288 Systems Project	1	4			3
Operating System. Select 3 credits. (Up to 3 additional credits may serve as Other Major Electives).					
CIS 149 Operating System - MVS	2	2			3
CIS 247 Operating System - DOS/VSE	2	3			3
CIS 244 Operating System - AS/400	2	3			3
Object-Oriented Programming. Select 3 credits. (Additional credits may serve as Other Major Electives).					
CSC 134 C++ Programming	2	3			3
OR					
CSC 120 Computer Fundamentals I	3	2			4
CSC 139 Visual BASIC Programming	2	3			3
CSC 148 JAVA Programming	2	3			3
Other Major Electives. Select 6 credits:					
BUS 110 Introduction to Business	3	0			3
CIS 172 Introduction to the Internet	2	3			3
CIS 193 Selected Topics in Information Systems	0-3	0-6			3
CSC196 Seminar in Information Systems	0-1	0-3			1
CIS 211 AS/400 Maintenance and Operations	2	3			3
CIS 289 Operations Project	2	2			3
COE 112 Co-op Work Experience 1	0	0		20	2
CSC 131 Assembly Programming	2	3			3
CSC 143 Object-Oriented Programming	2	3			3
CSC 234 Advanced C++ Programming	2	3			3
CSC 239 Advanced Visual BASIC	2	3			3
CSC144 AS/400 CL Programming	2	3			3
CSC193 Selected Topics in Information Systems	0-3	0-6			3
CIS 196 Seminar in Information Systems	0-1	0-3			1
CIS 174 Network System Manager I	2	2			3
OR					
CIS 175 Network Management	2	2			3

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communication	3	0			3
Select a minimum of three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0			3
Select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this catalog.	3	0			3
Select one					
MAT 140 Survey of Mathematics	3	0			3
MAT 161 College Algebra	3	0			3
Total Credit Hours					**72-74**

Computer Programming Diploma (D25130) Computer Operations

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

The Computer Operations Diploma is a specialized area of Information Systems designed to prepare the individual for gainful employment as a mainframe and/or midrange computer operator.

Diploma Awarded

A Diploma (Computer Operations) in Information Systems is awarded by the college upon completion of this program.

Note

OST 131 Keyboarding is recommended for students who have not had a typing course.

For More Information

The Information Systems, Computer Operation Diploma program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6463 or 704-330-6881, the Program Chair 704-330-6879, a Program Advisor at 704-330-6457 or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement test determine placement in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CIS 110 Introduction to Computers	**2**	**2**			**3**
CSC 135 COBOL Programming	**2**	**3**			**3**
CIS 247 Operating System – DOS/VSE	**2**	**3**			**3**
CIS 152 Database Concepts and Applications	2	2			3

ACC 120 Principles of Accounting I	3	2			4
CIS 149 Operating System - MVS	2	2			3
NET 110 Data Communication / Networking	2	2			3
CSC 138 RPG Programming	2	3			3
CIS 289 Operation Project	2	2			3
Select One:					
CIS 244 Operating System - AS/400	2	3			3
CIS 211 AS/400 Maintenance and Operations	2	3			3
Other Major Elective. Select one:					
CSC 144 AS/400 CL Programming	2	3			3
CIS 172 Introduction to the Internet	2	3			3
CIS 174 Network System Manager I	2	2			3
OR					
CIS 175 Network Management I	2	2			3
COE 112 Co-op Work Experience I	0			20	2
General Education Core Requirements					
ENG 111 Expository Writing	3	0			3
MAT 140 Survey of Mathematics	3	0			3
Total Credit Hours					**45-46**

Computer Programming Certificates (C25130)

Specialization Certificates

The certificates listed below can be earned in the Computer Programming (A25130) program.

For More Information

For more information, call the Program Counselor at 704-330-6463 or 704-330-6881, the Program Chair 704-330-6879, or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

COBOL Programming Certificate (C25130-C1)

The COBOL Programming Certificate is designed to prepare the individual for employment in the field of computer programming using the COBOL programming language. The students will study systems analysis, mainframe Job Control Language, and programming/database language concepts as well as a coding, testing, and debugging application programs.

Students will study structured programming language concepts, data storage techniques, file design and maintenance, database design and maintenance, mainframe JCL, and systems analysis and design.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 135 COBOL Programming	**2**	**3**			**3**
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 149 Operating System – MVS	**2**	**2**			**3**
OR					
CIS 247 Operating System – DOS/VSE	**2**	**3**			**3**
CSC 235 Advanced COBOL	2	3			3
CIS 152 Database Concepts & Applications	2	2			3
CIS 286 Systems Analysis and Design	3	0			3
Total Certificate Credit Hours					**18**

RPG Programming and AS/400 Operations Certificate (C25130-C2)

The RPG Programming and AS/400 Operations Certificate is designed to prepare the individual for employment in the field of computer programming using the RPG programming language in a AS/400 shop environment. The student will study systems analysis, AS/400 Control Language, and programming/database languages concepts as well as a coding, testing, and debugging application program.

Students will study structured programming language concepts, data storage techniques, file design and maintenance, database design and maintenance, AS/400 operations, AS/400 CL, and systems analysis and design.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 138 RPG Programming	**2**	**3**			**3**
CIS 152 Database Concepts & Applications	**2**	**2**			**3**
CIS 211 AS/400 Maintenance and Operations	**2**	**3**			**3**
CSC 238 Advanced RPG	2	3			3
CSC 144 AS/400 CL Programming	2	3			3
OR					
CSC 244 Operating System —AS/400	2	3			3
CIS 286 Systems Analysis and Design	3	0			3
Total Certificate Credit Hours					**18**

Object-Oriented Programming Certificate (C25130-C3)

The Object-Oriented Programming Certificate is designed to prepare the individual for using object-oriented languages and object-oriented analysis and design in Computer Programming. Students study C++ Standard Template Library, techniques for storing and manipulating data internally and externally, and object-oriented analysis and design.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 120 Computing Fundamentals I	**3**	**2**			**4**
AND					
CSC 130 Computing Fundamentals II	3	2			4
OR					
CSC 134 C++ Programming	**2**	**3**			**3**
AND					
CSC 234 Advanced C++	2	3			3
CSC 143 Object-Oriented Programming	**2**	**3**			**3**
CSC 148 Java Programming	**2**	**3**			**3**
CSC 193 Selected Topics in Information Systems	0-3	0-6			3
Total Certificate Credit Hours					**15-17**

Criminal Justice Technology (A55180)

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement,

judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

Degree Awarded

The Associate in Applied Science Degree - Criminal Justice.

For More Information

The Criminal Justice program is in the Public Safety Division located at North Campus, Huntersville. For more information, call 704- 330-4165 or 704- 330-4114 weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6550 on the Main Campus, or by calling 704- 330-4105 on Tuesdays from 8 a.m. - 4 p.m. on the North Campus.

Admissions

- A High School Diploma or equivalent is required.
- Some courses require placement tests prior to registration.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Required Courses:

	Class	Lab	Hours Clinical	Work Exper.	Credits
CJC 111 Introduction to Criminal Justice	3	0	0	0	3
CJC 112 Criminology	3	0	0	0	3
CJC 113 Juvenile Justice	3	0	0	0	3
CJC 131 Criminal Law	3	0	0	0	3
CJC 212 Ethics and Community Relations	3	0	0	0	3
CJC 221 Investigative Principles	3	2	0	0	4
CJC 231 Constitutional Law	3	0	0	0	3
Students must choose 28 SHC from the following:					
CJC 120 Interviews-Interrogation	1	2			2
CJC 132 Court Procedure & Evidence	3	0	0	0	3
CJC 215 Organization and Administration	3	0	0	0	3
CJC 222 Criminalistics	3	0	0	0	3
CJC 232 Civil Liability	3	0	0	0	3
CJC 114 Investigative Photography	1	2	0	0	2
CJC 121 Law Enforcement Operations	3	0	0	0	3
CJC 122 Community Policing	2	0	0	0	3
CJC 141 Corrections	3	0	0	0	3
CJC 213 Substance Abuse	3	0	0	0	3
CJC 214 Victimology	3	0	0	0	3
CJC 223 Organized Crime	3	0	0	0	3
CJC 233 Correctional Law	3	0	0	0	3
CJC 241 Community-Based Corrections	3	0	0	0	3
CJC 251 Forensic Chemistry I	3	2	0	0	4
COE 112 Cooperative Work Exper.	0	0	20	0	2

General Education Core Requirements

Students must complete two ENG courses and one COM course from the following:

ENG 111 Expository Writing	3	0	0	0	3
ENG 113 Literature-Based Research OR	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
And one of the following:					
COM 110 Introduction to Communication	3	0	0	0	3
COM 231 Public Speaking	3	0	0	0	3
COM 233 Persuasive Speaking	3	0	0	0	3
Students must complete one course from the following:					
MAT 115 Mathematical Models	2	2	0	0	3
MAT 140 Survey of Mathematics	3	0	0	0	3
MAT 161 College Algebra	3	0	0	0	3
Students must complete the following course:					
CIS 111 Basic PC Literacy	1	2	0	0	2
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
Total Credits					**70**

Culinary Technology (A 55200)

The Culinary Technology curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of food service settings including full service restaurants, hotels, resorts, clubs, catering operations, contract food service, and health care facilities.

Course offerings emphasize practical application, a strong theoretical knowledge base, professionalism, and provide the critical competencies to successfully meet industry demands. Courses also include sanitation, food/beverage service and control, baking, garde manger, American/international cuisines, food production, and hospitality supervision.

Graduates should qualify for entry level positions, such as line cook, station chef, and assistant pastry chef. American Culinary Federation certification is available to graduates. With experience, graduates may advance to positions such as sous-chef, executive chef, or food service manager.

Degree Awarded

The Associate in Applied Science Degree - Culinary Technology is awarded by the College upon completion of this program.

Note

All culinary classes require student accident medical insurance.

Students are encouraged to complete CUL 110, Sanitation and Safety, during their first semester of class and are required to complete the course before or concurrent with CUL 180 and/or CUL 280.

In addition to tuition and textbooks, the estimated cost for tools and uniforms is $125.

For More Information

The Culinary Technology program is in the Hospitality Education Division. For more information, call the Program chair - 704-330-6301, weekdays, 8 a.m.-5 p.m. Program Counselors may be reached by calling 704-330-6550.

Admissions

- A High School Diploma is required.
- CPCC placement tests are required in English, mathematics and reading.

- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 110 Sanitation & Safety	**2**	**0**			**2**
CUL 120 Purchasing	2	0			2
CUL 135 Food and Beverage Service	**2**	**0**			**2**
CUL 135A Food and Beverage Service Lab	**0**	**2**			**1**
CUL 140 Basic Culinary Skills	**2**	**6**			**5**
CUL 160 Baking I	**1**	**4**			**3**
CUL 170 Garde Manger I	**1**	**4**			**3**
CUL 180 International & American Regional Cuisine	1	8			5
CUL 240 Advanced Culinary Skills	1	8			5
CUL 260 Baking II	1	4			3
CUL 270 Garde Manger II	1	4			3
CUL 280 Pastry and Confections	1	4			3
HRM 220 Food and Beverage Control	3	0			3
HRM 225 Beverage Management	2	0			2
HRM 280 Hospitality Management Problems	3	0			3
NUT 110 Nutrition	3	0			3
COE 112 Cooperative Education	0	0		20	2

General Education Core Requirements:

ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research & Reporting	3	0			3
MAT 115 Mathematical Models	2	2			3
ECO 251 Principles of Microeconomics	3	0			3
Students must choose one Communications course from the following:					
COM 110 Introduction to Communication	3	0			3
COM 231 Public Speaking	3	0			3
Students must choose one course and lab (if required) from the list of approved humanities courses listed at the end of this section of the catalog.	3	0			3
Total Credit Hours					**68**

Culinary Technology Certificates (C55200)

Specialization Certificates

Baking Certificate (C 55200 - C1)

Curriculum Description

This certificate is designed to prepare students who would like to be employed as a baking professional, or those with some culinary experience who want to further their knowledge in this specialized area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Technology program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 110 Sanitation and Safety	**2**				**2**
CUL 120 Purchasing	2				2
CUL 160 Baking I	**1**	**4**			**3**
CUL 260 Baking II	1	4			3
CUL 280 Pastry and Confections	1	4			3
COE 112 Cooperative Education	0	0	20		2
Total Credit Hours					**15**

Culinary Certificate (C 55200 - C2)

This certificate is designed to prepare students who would like to be employed as a roundsman in the culinary foodservice profession, or for those with some culinary experience who want to further their knowledge in this area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Certificate program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 140 Basic Culinary Skills	**2**	**6**			**5**
CUL 180 International/ American Cuisine	1	8			5
CUL 170 Garde Manger I	1	4			3
CUL 160 Baking I	1	4			3
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Garde Manger Certificate (C 55200 - C3)

Curriculum Description

This certificate is designed to prepare students who would like to be employed in the banquet, catering, cold foods and displays professions, or for those with some culinary experience who want to further their knowledge in this specialized area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Technology program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 170 Garde Manger I	**1**	**4**			**3**
CUL 270 Garde Manger II	1	4			3
CUL 110 Sanitation and Safety	**2**	**0**			**2**
CUL 120 Purchasing	2	0			2
HRM 220 Food & Beverage Control	3	0			3
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**15**

Hot Foods Certificate (C 55200 - C4)

This certificate is designed to prepare students who would like to be employed in the culinary profession, or for those with some culinary experience who want to further their knowledge in this specialized area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Technology Program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 140 Basic Culinary Skills	**2**	**6**			**5**
CUL 240 Advanced Culinary Skills	1	8			5
CUL 180 International/ American Cuisine	1	8			5
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**17**

Cytotechnology (C45220)

Cytotechnology is an advanced allied health career which prepares the individual to use specialized equipment to study cells for detecting cancer, hormonal abnormalities, and other pathological disease processes. Individuals entering this curriculum must have earned a Bachelor's degree with a concentration in the biological sciences.

Course work includes entry-level knowledge and skills in cell collection and preparation and microscopic use to interpret specimens. Graduates work in conjunction with pathologists to perform special diagnostic procedures.

Upon successful completion of the program, graduates receive a certificate in cytotechnology and are eligible to take the National Registry Examination of the American Society of Clinical Pathologists. Cytotechnologists may find employment in hospital laboratories, universities, and private laboratories.

Certificate Awarded

A Certificate in Cytotechnology is awarded by the College upon successful completion of the program.

Note

The Cytotechnology Program is a full-time, twelve month program that begins fall semester of each year. Progression in the program is dependent on satisfying course prerequisites, corequisites and maintaining at least a C average in all course work. Graduates of this program may apply to take the Cytotechnology Registry Examination administered by the Board of Registry of the American Society of Clinical Pathologists.

The Cytotechnology program at CPCC is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) of the American Medical Association (AMA) in collaboration with the American Society of Cytopathology (ASC).

In addition to tuition and textbooks, costs of the program include the following: uniforms, lab coat, a physical examination including immunizations (tetanus toxoid, Hepatitis B vaccinations [series of three], TB test, color blindness test, etc.), and registration fee for the Board of Registry Examination.

Admissions

Students wishing to apply to the Cytotechnology Program must complete the following requirements prior to admission:

- Bachelor's degree from an accredited college or university which includes:
  - Biology: 20 semester hours (30 quarter hours)
  - Chemistry: 8 semester hours (12 quarter hours)
  - Mathematics: 3 semester hours (5 quarter hours)
  - Humanities: minimum of 4 semester hours (6 quarter hours)
- 2.5 GPA in sciences courses as well as an overall 2.0 GPA is recommended.
- If course work was completed more than ten years prior to

entering the program, the student must also submit scores from the Allied Health Professions Admissions Test prior to the application deadline. Information and application for this test can be obtained by contacting the Psychological Corporation at 1-800-622-3231.

- F1 students must submit scores from both the Test of Spoken English (TSE) and the Test of English as a Foreign Language (TOEFL) prior to the application deadline.
- F1 students must submit transcript evaluation for course work completed outside the U.S. from an agency approved by the American Society of Clinical Pathologists. A list of these agencies may be obtained by calling the ASCP at (800) 621-4142.
- All students must submit an application, two letters of recommendation from previous science professors, and all college transcripts as well as complete an interview with the Program chair.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
Fall Semester					
CYT 210 Introduction to Clinical Cytology	4	0	0		4
CYT 212 Introduction to Cytologic Techniques	4	0	0		4
CYT 214 Gynecologic Cytology	8	12	0		14
CYT 216 Clinical and Diagnostic Interpretation I	4	0	0		4
	20	**12**	**0**		**26**
Spring Semester					
CYT 220 Non-Gynecologic Cytology	8	8	0		12
CYT 222 Cytopreparation Techniques	2	0	0		2
CYT 224 Gynecologic Cytology Clinical Practicum I	0	0	12		4
CYT 226 Clinical and Diagnostic Interpretation II	4	0	0		4
	14	**8**	**12**		**22**
Summer Semester					
CYT 230 Non-Gynecologic Cytology Clinical Practicum	0	0	6		2
CYT 232 Clinical Cytology Practicum	0	0	3		1
CYT 234 Gynecologic Cytology Clinical Practicum II	0	0	9		3
CYT 236 Cytology Literature Review	1	0	0		1
CYT 238 CYT Professional Issues	2	0	0		2
	3	**0**	**18**		**9**
Total Semester Hours					**57**

- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Dental Assisting Diploma (D45240)

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chairside and related office and laboratory procedures.

Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.

Graduates may be eligible to take the Dental Assisting National Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

Diploma Awarded

A Diploma in Dental Assisting is awarded by the college upon completion of this program.

Note

Costs of this program, in addition to tuition and textbooks include uniforms, materials, examinations, physical examination, blood tests, drug screening tests and specific vaccinations. In addition, reliable transportation is needed in order to meet off campus clinical rotation requirements. Students must demonstrate proficiency in microcomputer operations equivalent to or higher than CIS 111.

Students must be certified by the American Heart Association in "Health Care Provider Level" CPR or by the American Red Cross in "CPR for the Professional Rescuer" prior to registering for DEN 112 and/or DEN 101.

For More Information

The Dental Assisting program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6500 or 6468.

Admissions

Please refer to the Admission Steps for Degree, Diploma, or Certificate students:

- Complete a CPCC general application and a program application.
- Submit high school transcripts as well as any college transcripts.
- Take required reading, English and math placement tests.
- Complete an information form in Sloan building, Suite C.
- Schedule and attend counseling orientation to review placement test scores, program information, and select courses for registration.
- All required Advancement Studies must be completed prior to acceptance.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.
- Students must successfully complete all prerequisite DEN courses prior to beginning clinical rotations.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BIO 163 Basic Anatomy and Physiology	2	0	5		5
DEN 100 Basic Orofacial Anatomy	2	0	0		2
DEN 101 Preclinical Procedures	4	6	0		7
DEN 111 Infection/Hazard Control	2	0	0		2
DEN 112 Dental Radiography	2	3	0		3
DEN 102 Dental Materials	3	4	0		5
DEN 103 Dental Sciences	2	0	0		2
DEN 104 Dental Health Education	2	2	0		3
DEN 106 Clinical Practice I	1	0	12		5
DEN 105 Practice Management	2	0	0		2
DEN 107 Clinical Practice II	1	0	12		5

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	3
COM 231 Public Speaking	3	0	0	3
Total Credit Hours				**47**

Dental Hygiene (A45260)

The Dental Hygiene curriculum prepares individuals with the knowledge and skills to access, plan, implement, and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene, clean teeth, take x-rays, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and professional education.

Degree Awarded

The Associate in Applied Science Degree - Dental Hygiene Degree is awarded by the College upon completion of this program.

Note

All students are required to be certified in first aid and Health Care Provider CPR (American Heart) or CPR for Professional Rescuer (American Red Cross) before completion of DEN 131, Dental Hygiene Clinic I.

Students must have completed at least a high school chemistry course with a laboratory or its equivalent prior to being accepted into the dental hygiene program. CHM 121 and 121A is an acceptable substitute for high school chemistry. The chemistry requirement must be completed not more than five years prior to acceptance.

Students must demonstrate basic computer competencies through course work or testing. The Division Director of Computer Office and Information Systems will determine equivalent competency.

Costs of this program, in addition to tuition and textbooks, include uniforms, instruments, physical examination, and specific vaccinations.

Licensure to practice dental hygiene is required prior to working in any state or jurisdiction.

For More Information

The Dental Hygiene program is in the Health Sciences Division. For more information, call the Health Sciences Division - 704- 330-6483, weekdays, 8 a.m. -5 p.m. Program Counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

Please refer to the Admission Steps for Degree Diploma, or Certificate students:

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Complete an information form in Sloan-Morgan Building, Suite C.
- Schedule and attend counseling orientation to review placement test scores, program information, and select courses for registration.
- All needed Advancement Studies courses must be completed prior to acceptance.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

In any Associate Degree Health Sciences program for which there are more applicants who have completed the preadmission requirements than there are positions, admission points will be assigned according to the applicant's documented record. Criteria for selection includes scores on standardized tests, past academic performance, and experience in the field of interest.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BIO 175 Microbiology	2	2	0		3
BIO 163 Basic Anatomy and Physiology	4	2	0		5
DEN 110 Orofacial Anatomy	2	2	0		3
DEN 111 Infection/Hazard Control	2	0	0		2
DEN 112 Dental Radiography	2	3	0		3
DEN 120 Dental Hygiene Preclinic Lecture	2	0	0		2
DEN 121 Dental Hygiene Preclinic Laboratory	0	6	0		2
DEN 123 Nutrition/Dental Health	2	0	0		2
DEN 125 Dental Office for Emergencies for Hygienes	0	2	0		1
DEN 124 Periodontology	2	0	0		2
DEN 130 Dental Hygiene Theory I	2	0	0		2
DEN 131 Dental Hygiene Clinic I	0	0	9		3
DEN 140 Dental Hygiene Theory II	1	0	0		1
DEN 141 Dental Hygiene Clinic II	0	0	6		2
DEN 220 Dental Hygiene Theory III	2	0	0		2
DEN 221 Dental Hygiene Clinic III	0	0	12		4
DEN 222 General and Oral Pathology	2	0	0		2
DEN 223 Dental Pharmacology	2	0	0		2
DEN 224 Materials and Procedures	1	3	0		2
DEN 230 Dental Hygiene Theory IV	1	0	0		1
DEN 231 Dental Hygiene Clinic IV	0	0	12		4
DEN 232 Community Dental Health	2	0	3		3
DEN 233 Professional Development	2	0	0		2

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Reporting	3	0	0		3
SOC 210 Introduction to Sociology	3	0	0		3
MAT 140 Survey of Mathematics or	2	2	0		3
COM 231 Public Speaking	3	0	0		3
Choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0		3
Total Credit Hours					**73**

Developmental Disabilities

(See Human Services Technology)

Diesel Mechanics

(See Heavy Equipment and Transport Technology)
(Call 704-330-6220 for program information)

Early Childhood Associate (A55220)

The First Union Early Childhood Associate Program is named in appreciation for a gift from the bank to the CPCC Foundation's Winning Partnership Campaign in 1996. There is growing recognition of the importance of early childhood edu-

cation among both corporate and governmental leadership.

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Degree Awarded

The Associate in Applied Science Degree - Early Childhood is awarded by the College upon completion of this program.

Program Accreditation

All Early Childhood courses may be applied for training/ education hours required by the North Carolina Division of Child Development. Courses are offered for North Carolina Early Childhood and Administrative Credentials.

Note

Students interested in transferring to a senior institution should discuss their education and career goals with their faculty advisor. Students should also consult with a faculty advisor or program counselor regarding the transferability of this program to senior institutions.

For More Information

The Early Childhood Associate program is in the Nursing and Human Services Division. For more information, call the Program Chair at 704- 330-6764, weekdays from 8 a.m. - 5 p.m. The Program Counselor can be reached at 704- 330-5013.

Admissions

- A High School Diploma or equivalent is required.
- After completing admissions form and placement tests, students will then see the Program Counselor who will advise them before they see the Program Chair. An interview with the Program Chair is required for entry into the program.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111N Cooperative Education I				10	1
EDU 197 Seminar in Early Childhood	2				2
EDU 131 Children, Family, and Community	3				3
EDU 146 Child Guidance	3				3
EDU 221 Children With Special Needs	3				3
EDU 144 Child Development I	3				3
EDU 145 Child Development II	3				3
EDU 259 Curriculum Planning	3				3
EDU 151 Creative Activities	3				3
EDU 151A Creative Activities		2			1
EDU 251 Exploration Activities	3				3
EDU 251A Exploration Activities		2			1
EDU 280 Literacy Experiences	3				3
EDU 280A Literacy Experiences		2			1
EDU 188 Issues in Early Childhood Education	2				2
COE 121N Work Experience II				10	1
COE 131N Work Experience III				10	1
EDU 297 Seminar	2				2
Choose four credit hours from the following:					
EDU 119 Early Childhood Education	3	2			4
OR					
EDU 111 Early Childhood Credentials I	(2)				(4)
AND					
EDU 112 Early Childhood Credentials II	(2)				(4)
OR					
EDU 111 Early Childhood Credentials I	(2)				(4)
AND					
EDU 113 Family/Early Childhood Credential II	(2)				(4)
Students must select from the following options:					
Professional Business & Fundamental Electives					
Choose 9 SHC from the following:					
EDU 261 Early Childhood Administration I	2				2
EDU 262 Early Childhood Administration II	3				3
EDU 234 Infants, Toddlers and Twos	3				3
EDU 153 Health, Safety and Nutrition	3				3
EDU 235 School-Age Dev & Program	2				2
EDU 254 Music and Movement for Children	1	2			2
EDU 241 Adult-Child Relations	2				2
EDU 263 Dev School-Age Program	2				2
EDU 288 Advanced Issues in Early Childhood Ed.	2				2
BUS 230 Small Business Management	3				3
BUS 137 Principles of Management	3				3
ACC 115 College Accounting	3	2			4
PSY 150 General Psychology	3				3
PSY 241 Developmental Psychology	3				3
PSY 281 Abnormal Psychology	3				3
SOC 210 Introduction to Sociology	3				3
SOC 220 Social Problems	3				3
General Education Core Requirements					
ENG 111 Expository Writing	3				3
ENG 114 Professional Research & Reporting	3				3
COM 110 Introduction to Communication	3				3
MAT 140 Survey of Mathematics	3				3
OR					
MAT 115 Mathematicals Models					(3)
CIS 111 Basic PC Literacy	1	2			2
SOC 213 Sociology of the Family	3				3
Choose three (3) credit hours course from the list of approved humanities courses listed at the end of this section of the catalog:	3				3
Total Credit Hours					**72**

Early Childhood Associate Certificates (C55220)

Specialization Certificate (C55220-C1)

The Certificate listed below can be earned in the Early Childhood Associate program and can be applied toward the Early Childhood Associate Degree. For more information call the Program Chair - 704- 330-6764, weekdays, 8 a.m. - 5 p.m.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
EDU 119 Early Childhood Education	3	2			4
OR					
EDU 111 Early Childhood Credential I	(2)				(2)
AND					
EDU 112 Early Childhood Credential II	(2)				(2)
OR					
EDU 113 Family/Early Childhood Credential II	(2)				(2)
EDU 144 Child Development I	3				3
EDU 146 Child Guidance	3				3
EDU 151 Creative Activity	3				3
EDU 151A Creative Activity Lab	0	2			1
COE 111 Cooperative Education I					1
EDU 197 Seminar in Early Childhood Education					2
Total Credit Hours					**17**

Early Childhood Associate Certificate with a Specialization in Administration (C55220-C2)

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
EDU 261 Early Childhood Administration I	2				2
EDU 262 Early Childhood Administration II	3				3
EDU 131 Children, Family, and Community	3				3
EDU 146 Child Guidance	3				3
EDU 153 Health, Safety, and Nutrition	3				3
EDU 144 Child Development I	(3)				(3)
OR					
EDU 145 Child Development II	(3)				(3)
Total Credit Hours					**17**

Early Childhood Associate Certificate with a Specialization in School-Age (C55220-C3)

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
EDU 131 Children, Family, and Community	3				3
EDU 145 Child Dvelopment II	3				3
EDU 146 Child Guidance	3				3
EDU 235 School-Age Dev & Program	2				2
EDU 263 Dev. School-Age Program	2				2
*EDU 151 Creative Activities	(3)				(3)
*EDU 151A Creative Activities		(2)			(1)
OR					
*EDU 251 Exploration Activities	(3)				(3)
*EDU 251A Exploration Activities		(2)			(1)
OR					
*EDU 280 Literacy Experiences	(3)				(3)
*EDU 280A Literacy Experiences		(2)			(1)
Total Credit Hours					**17**

Special Note: Choose one of the * courses and corequisite Lab for a total of 4 credits.

Electrical/Electronics Technology (A35220)

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

Degree Awarded

The Associate in Applied Science Degree - Electrical/Electronics Technology is awarded by the College upon completion of this program.

For More Information

The Electrical/Electronics Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-4452 or the Technical Careers Division office at 704- 330-4445, weekdays from 8 a.m.- 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of the High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 113 Basic Wiring I	2	6			4
ELC 117 Motors and Control	2	6			4
ELC 128 Introduction to PLC	2	3			3
ELN 133 Digital Electronics	3	3			4
ELC 118 National Electrical Codes	1	2			2
ELC 119 NEC Calculations	1	2			2
ELC 121 Electrical Estimating	1	2			2
ELC 125 Diagrams and Schematics	1	2			2
ELC 132 Electrical Drawings	1	3			2
ELC 126 Electrical Computations	2	2			3
ELC 228 PLC Applications	2	6			4
ELC 114 Basic Wiring II	2	6			4
ELC 110 Telecom Circuits/Devices	3	3			4
OR					
ELC 115 Industrial Wiring	2	6			4
ELN-229 Industrial Electronics	2	4			4

ELC 229 Applications Project	1	3			2
ELC 127 Software for Technicians	1	2			2
ELC 234 Electrical System Design	2	3			3
OR					
ELC 215 Electrical Maintenance	2	3			3
OR					
ELC 116 Telecom Cabling	1	2			3
OR					
COE 123 Co-op Work Experience II	0	0	0	30	3

General Education Core Requirements

ENG 111 Expository Writing	3	0			3
MAT 115 Mathematical Models	3	0			3
(or student may choose a minimum of three (3) credit hours from the list of approved mathematics courses listed at the end of this section of the catalog					
Student must select one of the following:					
COM 110 Introduction to Communications	3	0			3
COM 231 Public Speaking	3	0			3
COM 233 Persuasive Speaking	3	0			3
(or student may choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog)					
PSY 150 General Psychology	3	0			3
(or student may choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog)					
Student may choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog)	3	0			3
Total Credit Hours					**71**

Electrical/Electronics Technology Certificates (C35220)

Specialization Certificates

The certificates listed below can be earned in the Electrical/Electronics Technology (A35220) program.

For More Information

For more information, call the Program Chair - 704- 330-4452, or the Technical Careers Division at 704- 330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Commercial (C35220-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6	0	0	5
ELC 114 Basic Wiring II	2	6	0	0	4
ELC 115 Industrial Wiring	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 119 NEC Calculations	1	2	0	0	2
Total Credit Hours					**17**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Controls (C35220-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 128 Introduction to PLC	2	3	0	0	3
ELC 117 Motors and Control	2	6	0	0	4
ELC 228 PLC Applications	2	6	0	0	4
ELC 125 Diagrams and Schematics	1	2	0	0	2
Total Credit Hours					**13**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Residential (C35220-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 121 Electrical Estimating	1	2	0	0	2
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 119 NEC Calculations	1	2	0	0	2
ELC 132 Electrical Drawings	1	3	0	0	2
Total Credit Hours					**12**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Industrial (C35220-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 115 Industrial Wiring	2	6	0	0	4
ELC 117 Motors and Control	2	6	0	0	4
ELC 128 Introduction to PLC	2	2	0	0	3
ELC 215 Electrical Maintenance	2	3	0	0	3
					14

Electrical/Electronics Technology with a Specialization Installation and Maintenance Telecommunications (C35220-C5)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 113 Basic Wiring I	2	6			4
ELC 110 Telecom Circuits/Devices	2	6			4
ELC 116 Telecom Cabling	1	2			2
ELC 127 Software for Technicians	1	2			2
Total Credit Hours					**17**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Construction Wiring (C35220-C6)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 114 Basic Wiring II	2	6	0	0	4
ELC 115 Industrial Wiring	2	6	0	0	4
ELC 132 Electrical Drawings	1	3	0	0	2

Total Credit Hour **14**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance (C35220-C7)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 114 Basic Wiring II	2	6	0	0	4
ELC 215 Electrical Maintenance	2	3	0	0	3
ELC 132 Electrical Drawings	1	3	0	0	2
Total Credit Hour					**13**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Basic Wiring (C35220-C8)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6	0	0	5
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 114 Basic Wiring II	2	6	0	0	4
Total Credit Hour					**13**

Electrical/Electronics Technology Diploma (D35220)

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

Diploma Awarded

A Diploma in Electrical/Electronics Technology is awarded by the College upon completion of this program.

For More Information

The Electrical/Electronics Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-4452 or the Technical Careers Division office at 704- 330-4445 weekdays from 8 a.m.- 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of the High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6	0	0	5
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 114 Basic Wiring II	2	6	0	0	4
ELC 115 Industrial Wiring	2	6	0	0	4
OR					
ELC 110 Telecom Circuits/Devices	3	3			4
ELC 117 Motors and Control	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 119 NEC Calculations	1	2	0	0	2
ELC 121 Electrical Estimating	1	2	0	0	2
ELC 125 Diagrams and Schematics	1	2	0	0	2
ELC 132 Electrical Drawings	1	3	0	0	2
ELC 215 Electrical Maintenance	2	3	0	0	3
COE 123 Co-Op Work Experience I	0	0	0	30	3
ELC 127 Software for Technicians	1	2			2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
* ENG 111 or a more advanced ENG course	3	0	0	0	3
MAT 115	2	2	0	0	3
Total Credit Hours					**47**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Electrical Engineering Technology (A40180)

The Electrical Engineering Technology curriculum is designed to provide training for entry-level technicians desiring a career in electrical maintenance and management, or in the design, planning, construction, development and installation of electrical systems, machines, and power generating equipment.

Beginning with electrical fundamentals, course work progressively introduces electronics, electrical machines and controls, and electrical power systems. Other course work includes the study of various fields associated with the electrical/electronic industry.

Graduates may seek employment as technicians, engineering assistants, technical managers, or salespersons in electrical generation/distribution, industrial maintenance, electronic repair or other fields requiring a broad-based knowledge of electrical and electronic concepts.

Degree Awarded

The Associate in Applied Science Degree - Electrical Engineering Technology is awarded by the College upon completion of the program.

Program Accreditation

The Electrical Engineering Technology program at Central Piedmont Community College is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

The Electrical Engineering Technology program provides a basic background in the practical application of both fundamental and specialized electrical and electronic principles. Courses are designed to present technical content in an order that provides students with progressive levels of job-related knowledge and skills. From fundamental electrical and electronic courses, concentrated study in various fields of the electrical industry, including industrial controls, electrical machines and programmable logic controllers, and automated manufacturing/robotics.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses.

ment to support practical laboratory activity in all courses.

Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect as the time of re-entry.

Students in the Electrical Engineering Technology (A40180) program desiring to earn an additional degree in Computer Engineering Technology (A40160), or Electronics Engineering Technology (A40200) must meet the course requirements of the additional degree, and in the process complete a minimum of 12 unduplicated required or elective semester hours credit.

For More Information

The Electrical Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program chair at 704- 330-6479, weekdays from 9 a.m. and 5 p.m. or the Program Counselor at 704- 330-6463 or 704-330-6881.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 131 DC/AC Circuit Analysis	4	3	0	0	5
ELC 135 Electrical Machines I	2	2	0	0	3
ELC 136 Electrical Machines II	3	3	0	0	4
ELC 231 Electric Power System	3	2	0	0	4
ELN 131E Electronic Devices	3	3	0	0	4
ELN 133E Digital Electronics	3	3	0	0	4
ELN 260 Programmable Logic Controllers	3	3	0	0	4
ELC 133 Advanced Circuit Analysis	2	3	0	0	3
ELN 132 Linear IC Applications	3	3	0	0	4
Technical Electives (5 credit hours to be selected from the following courses)					5
					40
CET 111 Computer Upgrade and Repair I	2	3	0	0	3
CIS 110 Introduction to Computers	2	2	0	0	3
COE 112E Cooperative Work Experience I	0	0	0	20	2
COE 122E Cooperative Work Experience II	0	0	0	20	2
ELC 213 Instrumentation	3	2	0	0	4
ELC 234E Electrical Systems Design	2	3	0	0	3
ELC 293 Selected Topics in Electrical Engineering Technology	2	3	0	0	3
ELN 232 Introduction to Microprocessors	3	3	0	0	4
ELN 234 Communication Systems	3	3	0	0	4
ELN 236 Fiber Optics and Lasers	3	2	0	0	4
ELN 237 Local Area Networks	2	3	0	0	3

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communications	3	0	0	0	3
MAT 121 Algebra/Trigonometry	3	0	0	0	3
MAT 122 Algebra/Trigonometry	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics	3	2	0	0	4
PHY 132 Physics Elec & Magnetism	3	2	0	0	4
Student must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0	0	0	3
Student must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog	3	0	0	0	3
					19
Total Credit Hours					**72**

Electrical Engineering Technology Certificate (C40160-C1)

Specialization Certificate

The certificate listed below can be earned in the Electrical Engineering Technology (C40160) Program.

More Information

For more information, call the Program Chair at 704-330-5496, or the Information Technology Office at 704-330-6549, weekdays from 8:00 Am - 5:00 PM. Program Counselors can be reached by calling 704-330-6881 or 6463

Admissions

High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced math. Skills and proficiencies should be developed in writing, computer literacy, and science.

CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.

A counseling/orientation appointment follows placement testing.

Electrical Engineering Technology with a Specialization in PLC Systems (C40180-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELN 133E Digital Electronics	3	3			4
ELN 132 Linear IC Applications	3	3			4
ELN 260 Programmable Logic Controllers	3	3			4
Total Credit Hours					**12**

Electrical Engineering Technology with a Specialization in Electrical Systems (C40180-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 135 Electrical Machines I	2	2			3
ELN 132 Linear IC Applications	3	3			4
ELC 213 Instrumentation	3	3			4
ELN 260 Programmable Logic Controllers	3	3			4
Total Credit Hours					**15**

Electrical Engineering Technology with a Specialization in Advanced Electrical Systems (C40180-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 136 Electrical Machines II	3	3			4
ELC 231 Electrical Power Systems		3	2		4
ELC 213 Instrumentation		3	2		4
Total Credit Hours					**12**

Electronics Engineering Technology Certificate (C40160-C1)

Specialization Certificate

The certificate listed below can be earned in the Electronics Engineering Technology (C40160) Program.

More Information

For more information, call the Program Chair at 704-330-5496, or the Information Technology Office at 704-330-6549, weekdays from 8:00 Am - 5:00 PM. Program Counselors can be reached by calling 704-330-6881 or 6463

Admissions

- High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced math. Skills and proficiencies should be developed in writing, computer literacy, and science.
- CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.

Electronics Engineering Technology (A40200)

(See Telecommunications and Network Engineering Technology)

The Electronic Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Degree Awarded

The Associate in Applied Science Degree - Electronics Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Electronics Engineering Technology program at Central Piedmont Community College is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

Electronics Engineering Technology involves the practical application of electrical and electronic fundamentals of design, fabrication, manufacturing, testing, repair and maintenance of electronic components, circuits, and systems. The electronics engineering technician is concerned with analog and digital circuitry, microprocessors, microcomputers, and their practical application in modern industrial settings.

The Electronics Engineering Technology curriculum provides a basic background in the practical application of both fundamental and specialized electronic principles. Courses are designed to present technical content in an order that provides students with progressive levels of job-related knowledge and skills. From fundamental electrical and electronic courses, students advance to electronic specialty courses that provide concentrated study in various fields of the electronic industry, including computer-electronics, microprocessors, systems maintenance, data communication, robotics, and printed circuit board layout and design using CAD.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses.

Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect as the time of re-entry.

Students in Electronics Engineering Technology (A40200) program desiring to earn an additional degree in Computer Engineering Technology (A40160) or Electrical Engineering Technology (A40180), must meet the course requirements of the additional degree, and in the process complete a minimum of 12 unduplicated required or elective semester hours credit.

For More Information

The Electronics Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program chair at 704- 330-6479, weekdays from 9 a.m. and 5 p.m. or the Program Counselor at 704- 330-6463 or 704-330-6881.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 133 C Programming	2	3	0	0	3
ELC 131 DC/AC Circuit Analysis	4	3	0	0	5
ELN 131E Electronic Devices	3	3	0	0	4
ELN 132 Linear IC Applications	3	3	0	0	4
ELN 133E Digital Electronics	3	3	0	0	4
ELN 232 Introduction to Microprocessors	3	3	0	0	4
ELC 133 Advanced Circuit Analysis	2	3	0	0	3
ELC 213 Instrumentation	3	2	0	0	4
ELN 150 CAD for Electronics	1	3	0	0	2
ELN 247 Electronic Applications Project	1	3	0	0	2
ELN 275 Troubleshooting	1	2	0	0	2
Technical Electives (7 credit hours To be selected from the following courses)					7
					44
CIS 110 Introduction to Computers	2	2	0	0	3
ELN 260 Programmable Logic Controllers	3	3	0	0	4
CET 111 Computer Upgrade and Repair I	2	3	0	0	3
COE 112E Cooperative Work Experience I	0	0	0	20	2
COE 122E Cooperative Work Experience II	0	0	0	20	2
ELC 234E Electrical Systems Design	2	3	0	0	3
ELN 233 Microcomputer Systems	3	3	0	0	4
ELN 234 Communication Systems	3	3	0	0	4
ELN 236 Fiber Optics and Lasers	3	2	0	0	4
ELN 237 Local Area Networks	2	3	0	0	3
ELN 238 Advanced LANs	2	3	0	0	3
ELN 293 Selected Topics in Electronics Engineering Technology	2	3	0	0	3

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communications	3	0	0	0	3
MAT 121 Algebra/Trigonometry	3	0	0	0	3
MAT 122 Algebra/Trigonometry	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics Mechanics	3	2	0	0	4
PHY 132 Physics Elec & Magnetism	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0	0	0	3
Student must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog	3	0	0	0	3
					32
Total Credit Hours					**76**

Electronics Engineering Technology with a Specialization in Introductory Electronics (C40200-C1)

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 131 DC/AC Circuit Analysis	4	3			5
MAT 121 Algebra/Trigonometry I	2	2			3
ELN 133E Digital Electronics	3	3			4
Total Credit Hours					**12**

Electronics Engineering Technology with a Specialization in Electronic Systems (C40200-C2)

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 131 DC/AC Circuit Analysis	4	3			5
MAT 122 Algebra/Trigonometry II	2	2			3
ELN 133E Digital Electronics	3	3			4
ELN 150 CAD for Electronics	1	3			2
Total Credit Hours					**14**

Electronics Engineering Technology with a Specialization in Digital Systems (C40200-C3)

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELN 133E Digital Electronics	3	3			4
ELN 132 Linear IC Applications	3	3			4
ELN 232 Introduction to Microprocessors	3	3			4
Total Credit Hours					**12**

Electronics Engineering Technology with a Specialization in Advanced Electronic Systems (C40200-C4)

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELN 132 Linear IC Applications	3	3			4
ELC 213 Instrumentation	3	2			4
ELN 275 Troubleshooting	1	2			2
ELN 247 Electronics Applications Project	1	3			2
Total Credit Hours					**12**

Fire Protection Technology (A55240)

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Course work includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law and code.

Graduates should qualify for employment in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and municipal fire departments. Employed persons should have opportunities for skilled and supervisory level positions within their current organizations.

Degree Awarded

The Associate in Applied Science Degree - Fire Protection Technology is awarded by the College upon completion of the program.

Note

Students may obtain a suggested course sequence list from the Program Counselor or the Program Chair.

For More Information

The Fire Protection Technology program is a part of the Public Safety Division. For more information, call the Program Chair at 704-330-6705, weekdays from 8 a.m. - 4:30 p.m. The Program Counselor can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests are required for admission to particular courses.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
FIP 120 Introduction to Fire Protection	2	0	0	0	2
FIP 124 Fire Prevention & Public Education	3	0	0	0	3
*FIP 128 Arson Investigation	3	0	0	0	3
FIP 220 Fire Fighting Strategies	3	0	0	0	3
FIP 230 Chem. Of Hazardous Mat 1	5	0	0	0	5
FIP 132 Building Construction	3	0	0	0	3
FIP 136 Inspections and Codes	3	0	0	0	3
FIP 140 Industrial Fire Protection	2	0	0	0	2
*FIP 144 Sprinklers & Auto Alarms	3	2	0	0	4
*FIP 148 Portable and Fixed Exting. Sys	2	2	0	0	3
FIP 152 Fire Protection Law	2	0	0	0	2
FIP 221 Advanced Fire Fighting Strategies Prereq: FIP 220	3	0	0	0	3
FIP 224 Instructional Methodology	4	0	0	0	4
FIP 231 Chem of Hazardous Mat II Prereq: FIP 230	4	2	0	0	5
*FIP 232 Hydraulics & Water Dist. Prereq: MAT 115	3	2	0	0	4
FIP 264 Flame Prop & Mat. Rating	1	4	0	0	3
FIP 276 Managing Fire Services	3	0	0	0	3

Pending State approval.

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
COM 231 Public Speaking	3	0	0	0	3
MAT 115 Mathematical Models	2	2	0	0	3
CIS 111 Basic PC Literacy	1	2	0	0	2
PSY 150 General Psychology	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog					
Total Credit Hours		**67**	**12**	**0**	**75**

Gerontology

(See Human Services Technology)

Graphic Arts and Imaging Technology (A30180)

The Graphics Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging, and related industries.

Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, and emerging printing technologies. Training may also include flexography, graphic design, and multimedia.

Graduates should qualify for career opportunities within the printing and publishing industries.

Degree Awarded

The Associate in Applied Science Degree-Graphic Arts and Imaging Technology is awarded by the College upon completion of this program.

For More Information

The Graphic Arts and Imaging Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4427 or the Division office at 704- 330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059. See Graphic Arts instructors or program counselors for suggested sequence.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 121 Graphic Arts I	2	4			4
GRA 151 Computer Graphics 1	1	3			2
GRA 152 Computer Graphics II	1	3			2
GRA 221 Graphic Arts II	2	4			4
GRA 255 Image Manipulation I	1	3			2
GRA 256 Image Manipulation II	1	3			2
GRD 141 Graphic Design 1	2	4			4
					20
Electives (Select 20 hours from the following courses)					
GRA 230 Substrates and Ink	2	0			2
GRA 245 Printing Sales Service	3	0			3
GRA 110 Graphic Arts Orientation	2	0			2
GRA 140 Graphic Arts Imaging	1	2			2
GRA 252 Imaging Techniques	1	4			3
GRA 280 Printing Management	2	0			2
GRA 222 Graphic Arts III	2	4			4
GRA 153 Computer Graphics III	1	3			2
GRA 154 Computer Graphics IV	1	3			2
GRA 161 Computer Graphics Apps I	0	3			1
GRA 162 Computer Graphics Apps II	0	3			1
GRA 163 Computer Graphics Apps III	0	3			1
GRA 164 Computer Graphics Apps IV	0	3			1
COE 111L Co-op Work Experience 1	0	0		10	1
COE 112L Co-op Work Experience 1	0	0		20	2
COE 132L Co-op Work Experience III	0	0		20	2
					20
Select 9 hours from the following:					
PRN 155 Screen Printing 1	1	3			2
PRN 240 Print Estimating/Planning	3	0			3
PRN 131 Flexography 1	2	4			4
PRN 156 Screen Printing II	1	3			2

PRN 221 Offset Press Operations	1	4		3
PRN 140 Bindery & Finishing	1	2		2
				9

*Students planning to transfer should consult advisor.

Required General Education Courses:

ENG 111 Expository Writing	3	0		3
AND				
ENG 113 Literature-Based Research	3	0		3
OR				
ENG 114 Professional Research & Reporting	3	0		3
Select one (1) COM course from the following:				
COM 110 Introduction to Communication	3	0		3
COM 231 Public Speaking	3	0		3
COM 233 Persuasive Speaking	3	0		3
Take the following:				
MAT 115 Mathematical Models	2	2		3
PSY 150 General Psychology (or students may choose three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog	3	0		3
ART 111 Art Appreciation (or students may choose three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0		3
Total Credit Hours				**67**

Graphic Arts and Imaging Technology Flexography Concentration (A3018A)

Flexography is a concentration under the Graphic Arts and Imaging Technology curriculum. This curriculum is designed to allow students to gain further study into the flexographic printing production process.

Students will produce jobs for labels, tags, boards, packaging, and corrugated jobs found in segments of the flexographic industry. Students will concentrate on color reproduction and produce products while understanding the limitations within the production process.

Graduates should qualify for career opportunities within the printing, publishing, and packaging industries.

Degree Awarded

The Associate in Applied Science Degree-Graphic and Imaging Technology/Flexography is awarded by the College upon completion of this program.

For More Information

Graphic and Imaging Technology/Flexography is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4427 or the Division office at 704-330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059. See Graphic Arts instructors or program counselors for suggested sequence of courses.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements
Major Core Requirements Courses

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 121 Graphic Arts I	2	4			4
GRA 151 Computer Graphics I	1	3			2
GRA 152 Computer Graphics II	1	3			2
GRA 221 Graphic Arts II	2	4			4
GRA 255 Image Manipulation I	1	3			2
GRA 256 Image Manipulation II	1	3			2
GRD 141 Graphic Design I	2	4			4
					20

Required Concentration Courses

GRA 153 Computer Graphics III	1	3		2
PRN 131 Flexography I	2	4		4
PRN 132 Flexography II	2	4		4
PRN 231 Flexography III	2	4		4
PRN 232 Flexography IV	2	4		4
PRN 241 Flexo Applications I	2	4		4
PRN 242 Flexo Applications II	2	4		4
				26

Other Major Course Electives

Select 12 hours from the following courses:

PRN 155 Screen Printing I	1	3		2
GRA 230 Substrates and Ink	2	0		2
PRN 240 Print Estimating/Planning	3	0		3
GRA 245 Printing Sales Service	3	0		3
GRA 110 Graphic Arts Orientation	2	0		2
GRA 140 Graphic Arts Imaging	1	2		2
GRA 252 Imaging Techniques	1	4		3
GRA 280 Printing Management	2	0		2
PRN 156 Screen Printing II	I	3		2
PRN 221 Offset Press Operations	1	4		3
GRA 222 Graphics Arts III	2	4		4
GRA 154 Computer Graphics IV	1	3		2
PRN 140 Bindery and Finishing	1	2		2
GRA 161 Computer Graphics Apps I	0	3		1
GRA 162 Computer Graphics Apps II	0	3		1
GRA 163 Computer Graphics Apps III	0	3		1
GRA 164 Computer Graphics Apps IV	0	3		1
COE 111L Co-op Work Experience I	0	0	10	1
COE 112L Co-op Work Experience I	0	0	20	2
COE 132L Co-op Work Experience II	0	0	20	2

Students planning to transfer should consult an advisor.

General Education Core Requirements:

ENG 111 Expository Writing	3	0		3
AND				
ENG 113 Literature Based Research	3	0		3
OR				
ENG 114 Professional Research and Reporting	3	0		3
Select one (1) COM course from the following:				
COM 110 Introduction to Communications	3	0		3
COM 231 Public Speaking	3	0		3
COM 233 Persuasive Speaking	3	0		
Take the following:				
MAT 115 Mathematical Models	2	2		3
PSY 150 General Psychology (or student may choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0		3
ART 111 Art Appreciation (or student may choose a minimum of three (3) credit hours from the list				

of approved humanities courses listed at the end of this section of the catalog.	3	0		3
Total Credit Hours				**76**

Graphic Arts & Imaging Technology Certificates (C30180)

Specialization Certificates

The Certificates listed below can be earned in the Graphic Arts & Imaging Technology (A30180) program.

For More Information

For more information, call the Program Chair at 704-330-4426, or the Technical Careers Division at 704-330-4445, weekdays from 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Graphic Arts & Imaging Technology With A Specialization in Duplicator Operation (C30180-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0	0	2
GRA 121 Graphic Arts I	2	4	0	0	4
GRA 140 Graphic Arts Imaging	1	2	0	0	2
GRA 230 Substrates and Ink	2	0	0	0	2
PRN 140 Bindery and Finishing	1	2	0	0	2
PRN 221 Offset Press Operation	1	4	0	0	3
Optional Classes (Choose one or two credits)					
GRA 151 Computer Graphics I	1	3	0	0	2
COE 111L Co-op Work Exper. I	0	0	0	10	1
COE 112L Co-op Work Exper. I	0	0	0	20	2
Total Credit Hours					**16-17**

Graphic Arts & Imaging Technology With A Specialization in General Print Shop Assistant (C30180-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0	0	2
GRA 121 Graphic Arts I	2	4	0	0	4
GRA 151 Computer Graphics I	1	3	0	0	2
GRA 245 Printing Sales and Service	3	0	0	0	3
PRN 140 Bindery and Finishing	1	2	0	0	2
Optional Classes (Choose four credits)					
GRA 152 Computer Graphics II	1	3	0	0	2
GRA 153 Computer Graphics III	1	3	0	0	2
GRA 280 Printing Management	2	0	0	0	2
PRN 221 Offset Press Operation	1	4	0	0	3
COE 111L Co-op Work Exper. I	0	0	0	10	1
COE 112L Co-op Work Exper. I	0	0	0	20	2
Total Credit Hours					**16-17**

Graphic Arts & Imaging Technology With A Specialization in Screen Printing Operator (C30180-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0	0	2
GRA 121 Graphic Arts I	2	4	0	0	4
GRA 151 Computer Graphics I	1	3	0	0	2
GRA 153 Computer Graphics III	1	3	0	0	2
PRN 155 Screen Printing I	1	3	0	0	2
PRN 156 Screen Printing II	1	3	0	0	2
Optional Classes (Choose two credits)					
GRA 255 Image Manipulation I	1	3	0	0	2
GRA 280 Printing Management	2	0	0	0	2
COE 111L Co-op Work Exper. I	0	0	0	10	1
COE 112L Co-op Work Exper. I	0	0	0	20	2
Total Credit Hours					**16-17**

Graphic Arts & Imaging Technology With A Specialization in Desktop Publishing-Entry Level (C30180-C5)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0	0	2
GRA 121 Graphic Arts I	2	4	0	0	4
GRA 151 Computer Graphics I	1	3	0	0	2
GRA 152 Computer Graphics II	1	3	0	0	2
GRA 153 Computer Graphics III	1	3	0	0	2
GRA 140 Graphics Arts Imaging	1	2	0	0	2
Optional Classes (choose three credits)					
ENG 111 Expository Writing	3	0	0	0	3
GRA 252 Imaging Techniques	1	4	0	0	3
GRA 161 Computer Graphics Applications I	0	3	0	0	1
GRA 162 Computer Graphics Applications II	0	3	0	0	1
COE 111L Co-op Work Exper. I	0	0	0	10	1
COE 112L Co-op Work Exper. I	0	0	0	20	2
Total Credit Hours					**16-17**

Graphic Arts & Imaging Technology With A Specialization in Desktop Publishing-Advanced Level (C30180-C6)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 221 Graphic Arts II	2	4	0	0	4
GRA 154 Computer Graphics IV	1	3	0	0	2
GRA 255 Image Manipulation I	1	3	0	0	2
GRA 256 Image Manipulation II	1	3	0	0	2
GRD 141 Graphic Design I	2	4	0	0	4
Optional Classes (choose three credits)					
ENG 111 Expository Writing	3	0	0	0	3
GRA 161 Computer Graphics Applications I	0	3	0	0	1
GRA 162 Computer Graphics Applications II	0	3	0	0	1
GRA 163 Computer Graphics Applications III	0	3	0	0	1
GRA 164 Computer Graphics Applications IV	0	3	0	0	1
GRA 252 Imaging Techniques	1	4	0	0	3
COE 111L Co-op Work Exper. I	0	0	0	10	1
COE 112L Co-op Work Exper. I	0	0	0	20	2
COE 122L Co-op Work Exper. II	0	0	0	20	2
Total Credit Hours					**16-17**

Health Information Technology (A45360)

The Health Information Technology curriculum prepares individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information.

Graduates will supervise department functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, out-patient clinics, physicians' offices, Hospice, and mental health facilities.

Admission

- High school courses in the following areas would be helpful to students: computer science, biology, and health occupations.
- A High School Diploma or equivalent is required for program admission.
- Students must be able to show evidence of basic keyboarding skills upon admission.
- Placement testing in English, mathematics, and reading is required to qualify for ENG 111 and MAT 115. Scores on placement tests may require students to take specified Advancement Studies courses. If required, completion of these courses is necessary prior to program admission. Students may, with approval of the Program chair, take no more than two preadmission courses during their first semester of program admission. During the admissions process, students are encouraged to obtain a course sequence list from the Program Counselor. This curriculum may be completed on a part-time or full-time basis.
- In addition to tuition and textbooks, there are program-related costs: coding classes require the purchase of current versions of ICD-9-CM and CPT-4 code books; directed practice requires a physical examination and updated immunizations; directed practice courses require travel to health care facilities that may be as much as 40 miles from Charlotte; opportunities for one or more directed practice rotations that may require overnight travel are offered to students but are not required. While every effort is made to accommodate the needs of students who do not have access to an automobile, the program cannot guarantee that directed practice sites will be located on bus lines.
- Progression in this program is dependent upon a score of C or better in all courses with HIT, BIO and MED prefixes.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

For More Information

The Health Information Technology program is in the Health Sciences Division. For more information, call the Program Chair at 704-330-6452, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6500 or 6468.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HIT 110 Health Information Orientation	**2**	**0**	**0**		**2**
HIT 112 Health Law and Ethics	3	0	0		3
HIT 114 Record Systems/Standards	2	3	0		3
HIT 210 Health Care Statistics	3	2	0		4
HIT 212 Coding/Classification I	3	3	0		4
HIT 214 Coding/Classification II	3	3	0		4
HIT 216 Quality Management	2	2	0		3
HIT 218 Management	3	0	0		3
HIT 226 Principles of Disease	3	0	0		3
HIT 280 Professional Issues	2	0	0		2
HIT 122 Directed Practice I	0	0	3		1
HIT 124 Directed Practice II	1	0	3		2
HIT 222 Directed Practice III	0	0	6		2
HIT 220 Computers in Healthcare	1	2	0		2
BIO 168 Anatomy and Physiology I	3	3	0		4
BIO 169 Anatomy and Physiology II	3	3	0		4
CIS 110 Introduction to Computers	2	2	0		3
MED 121 Medical Terminology I	**3**	**0**	**0**		**3**
MED 122 Medical Terminology II	3	0	0		3
OST 136 Word Processing	1	2	0		2

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Reporting	3	0	0		3
MAT 115 Mathematical Models	2	2	0		3
PSY 150 General Psychology	3	0	0		3
COM 110 Introduction to Communication OR					
COM 231 Public Speaking	3	0	0		3
The Student student may choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0		3
Total Credit Hours					**75**

Health Information Technology Certificate (C45360)

Health Information Technology (C45360-C1)

Specialization in Health Information Clerk

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HIT 110 Health Information Orientation	2	0	0		2
HIT 114 Records Systems/Standards	2	3	0		3
MED 121 Medical Terminology I	3	0	0		3
OST 136 Word Processing	1	2	0		2
CIS 110 Introduction to Computers	2	2	0		3
Total Credit Hours					**13**

Health Information Technology (C45360-C2)

Specialization in Release of Information Clerk

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HIT 110 Health Information Orientation	2	0	0		2
HIT 114 Records Systems/Standards	2	3	0		3

MED 121 Medical Terminology I	3	0	0	3
OST 136 Word Processing	1	2	0	2
CIS 110 Introduction to Computers	2	2	0	3
HIT 112 Health Law and Ethics	3	0	0	3
Total Credit Hours				**16**

Heavy Equipment and Transport Technology (A60240)

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals in developing basic knowledge and skills needed for employment in diesel powered medium and heavy duty vehicles.

Class room and lab experiences will be based on construction features, principles of operation, trouble shooting and repair of medium and heavy duty vehicles

Upon completion graduates should qualify for entry level employment as a technician in a dealership, fleet shop, or independent garage. Graduates should be able to pass the ASE certification exam.

Degree Awarded

The Associate in Applied Science Degree — Heavy Equipment and Transport Technology is awarded by the College upon completion of this program.

Note

Students must furnish required hand tools and protective clothing, as well as textbooks. A list can be obtained from an instructor or program chair by calling 704-330-6482 or 5480.

For More Information

The Heavy Equipment and Transport Technologies program is located in the Transport System Technologies Division. For more information, please contact the Program Chair at 704-330-6482, or the Division office at 704-330-5480, weekdays from 8 a.m. - 5 p.m. Program counselors can be reached by calling 704-330-6059.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 112 Diesel Electrical Systems	3	6			5
HET 126 Preventive Maintenance Lab	0	3			1
HET 231 Medium/Heavy Duty Brake Systems	1	3			2
HET 230 Air Brakes	1	2			2
HET 233 Suspension and Steering	2	4			4
HET 119 Mech. Transmissions	2	2			3
HET 115 Electronic Engines	2	3			3
HET 127 Shop Rules and Regulations	1	0			1
HET 128 Med/Heavy Duty Tune Up	1	2			2
HET 125 Preventive Maintenance	1	3			2
HET 116 AC Systems	1	2			2
Students must select one from the following courses:					
AUT 186 Auto Computer Applications	1	2			2
CIS 111 Basic PC Literacy	1	2			2
Students must select either the following four COE courses of the following HET/HYD courses:					
COE 112 Co-op Work Experience I	0	0		20	2
COE 122 Co-op Work Experience II	0	0		20	2
COE 132 Co-op Work Experience III	0	0		20	2
COE 212 Co-op Work Experience IV	0	0		40	2
HET 120 Intro. to Mobile Equipment	1	2			2
HET 118 Mechanical Orientation	2	0			2
HET 217 Tractor Performance	1	2			2
HYD 112 Hydraulics	1	2			2
Students must select two of the following courses:					
WLD 112 Basic Welding Processes	1	3			2
WLD 110 Cutting Processes	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2

General Education Core Requirements

ENG 111 Expository Writing	3	0			3
ENG 114 Prof. Research & Report Writing	3	0			3
COM 110 Intro. to Communications	3	0			3
MAT 115 Mathematical Models	2	2			3
PSY 150 General Psychology	3	0			3
Students must choose an approved Humanities course of (3) three credit hours from the list at the end of this section of this catalog.					3
Total Credit Hours					**65**

Heavy Equipment and Transport Technology Diploma (D60240)

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals with the knowledge and skills needed to service, troubleshoot, and repair medium and heavy duty vehicles.

The course work includes the purpose, construction features, and principles of operation of medium and heavy duty vehicles.

Graduates of the curriculum should qualify for entry level employment opportunities in a dealership, fleet shop, or independent garage as a technician. Graduates who have met the work experience requirement should also be prepared to take the ASE certification exam.

Diploma Awarded

A Diploma in Heavy Equipment and Transport Technology is awarded by the College upon completion of this program.

For More Information

The Heavy Equipment and Transport Technology program is in the Transport System Technologies Division. For more information, call the Program Chair - 704-330-6482, or the Transport Systems Technologies Division office - 704-330-5480, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6050.

Admissions

- Completion of a High School Diploma or the equivalent is encouraged as a foundation for a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 112 Diesel Electrical Systems	3	6			5
HET 231 Medium/Heavy Duty Brake Systems	1	3			2
HET 233 Suspension and Steering	2	4			4
HET 119 Mech. Transmissions	2	2			3
HET 115 Electronic Engines	2	3			3
HET 127 Shop Rules and Regulations	1	0			1
HET 125 Preventive Maintenance	1	3			2
HET 116 AC Systems	1	2			2
Students must select one from the following courses:					

AUT 186 Auto Computer Applications	1	2			2
CIS 111 Basic PC Literacy	1	2			2
Students must choose 2-5 of the following courses:					
COE 112 Co-op Work Experience I	0	0		20	2
COE 122 Co-op Work Experience II	0	0		20	2
HET 120 Intro. to Mobile Equipment	1	2			2
HET 118 Mechanical Orientation	2	0			2
HET 217 Tractor Performance	1	2			2
Students must select 1 of the following courses:					
WLD 112 Basic Welding Processes	1	3			2
WLD 110 Cutting Processes	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2

General Education Core Requirements

MAT 115 Mathematical Models	2	2			3
ENG 111 Expository Writing	3	0			3
Total Credit Hours					**46-52**

Heavy Equipment and Transport Technology Certificates (C60240)

Specialization Certificates

The certificates listed below can be earned in the Heavy Equipment and Transport Technology program.

For More Information

For more information, call the Program Chair at 704-330-6482, or the Transport System Technologies Division office at 704-330-6220, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Heavy Equipment and Transport Technology Certificate With a Specialization in Fleet Service (C60240-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 231 Medium/Heavy Duty Brake Systems	1	3			2
HET 233 Suspension & Steering	2	4			4
HET 125 Preventive Maintenance	1	3			2
AUT 186 Automotive Computer Applications	1	2			2
HET 119 Mechanical Transmission	2	2			2
Total Credit Hours					**12**

Heavy Equipment and Transport Technology Certificate With a Specialization in Engines (C60240-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 112 Diesel Electrical Systems	3	6			5
HET 127 Preventive Maintenance	1	3			2
Total Credit Hours					**13**

Heavy Equipment and Transport Technology Certificate With a Specialization in Equipment Maintenance (Diesel Repair) (C60240-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 112 Electrical	3	6			5
HET 125 Preventive Maintenance	1	3			2
HET 126 Preventive Maintenance Lab	0	3			1
AUT 186 Automotive Computer Applications	1	2			2
HET 115 Electronic Engines	2	3			3
Total Credit Hours					**13**

Heavy Equipment and Transport Technology Certificate With a Specialization in Equipment Maintenance (Forklift Repair) (C60240-C5)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Diesel Engines	3	9			6
HYD 112 Hydraulic/Medium/ Heavy Duty	1	2			2
HET 112X Diesel Electrical Systems	3	6			3
HET 125 Preventive Maintenance	1	3			2
Total Credit Hours					**13**

Horticulture Technology (A15240)

The Horticulture Technology curriculum is designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study.

Course work includes plant science, plant materials, propagation, soils, fertilizers, and pest management. Also included are courses in plant production, landscaping, and the management and operation of horticulture businesses.

Graduates should qualify for employment opportunities in nurseries, garden centers, greenhouses, landscape operations, gardens, and governmental agencies. Graduates should also be prepared to take the certified plant professional and licensed pesticide applicators examinations.

Degree Awarded

The Associate in Applied Science - Horticulture Technology is awarded by the College upon completion of this program.

For More Information

The Horticulture Technology program is in the Northeast Division. For more information call the Program chair at 704-330-6926, weekdays from 8 a.m. - 5 p.m. The Program Counselor can be reached at 704-330-6463 or 704-330-6881.

Admission

- A High School Diploma or equivalent (available through CPCC) is required.
- CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 162 Applied Plant Science	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 166 Soils and Fertilizers	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
HOR 150 Introduction to Horticulture	2	0	0	0	2
HOR 124 Nursery Operations	2	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
HOR 112 Landscape Design I	2	3	0	0	3
HOR 116 Landscape Management	2	3	0	0	3
HOR 260 Plant Materials II	2	2	0	0	3
HOR 255 Interiorscapes	1	2	0	0	2
HOR 273 Horticulture Management and Marketing	3	0	0	0	3
HOR 257 Arboriculture Practices	1	3	0	0	2
HOR 253 Horticulture Turfgrass	2	2	0	0	3
CIS 111 Basic PC Literacy	1	2	0	0	2
COE 111 Co-op Work Experience I	0	0	0	10	1
Technical Electives (12 credit hours to be selected from the following courses)					**12**
HOR 213 Landscape Design II	2	2	0	0	3
HOR 114 Landscape Construction	2	2	0	0	3
HOR 215 Landscape Irrigation	2	2	0	0	3
HOR 170 Horticulture Computer Application	I	3	0	0	2
HOR 118 Equipment Operation and Maintenance	1	3	0	0	2
HOR 251 Insects and Diseases	2	2	0	0	3
HOR 265 Advanced Plant Materials	I	3	0	0	2
FLO 189 Basic Floral Design	1	2	0	0	2
HOR 154 Introduction to Horticulture Therapy	2	4	0	0	4
HOR 293 Selected Topics in Horticulture	1-3	0-6	0	0	3
TRF 110 Intro Turfgrass Culture and Identification	3	2	0	0	4
TRF 152 Landscape Maintenance	2	2	0	0	3
Total Major Hours					**57**

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Report	3	0	0	0	3
MAT 115 Mathematical Models	2	2	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3
Students must choose three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog	3	0	0	0	3
(Students must choose three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
Total General Education Hours					**18**
Total Credit Hours					**75**

Horticulture Technology Diploma (D15240)

This Diploma is designed to prepare individuals for entry level positions in the area of horticulture. Course work includes plant science, plant materials, soils and fertilizers, pest management, propagations, plant production, and landscaping.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 162 Applied Plant Science	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 166 Soils and Fertilizers	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
HOR 150 Introduction to Horticulture	2	0	0	0	2
HOR 124 Nursery Operations	2	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
HOR 112 Landscape Design	2	3	0	0	3
HOR 253 Horticulture Turfgrass	2	2	0	0	3
Technical Electives (6 credit hours to be selected from the following courses)					6
HOR 255 Interiorscapes	1	2	0	0	2
HOR 251 Insects and Diseases	2	2	0	0	3
HOR 273 Horticulture Management and Marketing	3	0	0	0	3
HOR 257 Arboriculture Practices	1	3	0	0	2
COE 111 Co-op Work Experience I	0	0	0	10	I
HOR 260 Plant Materials II	2	2	0	0	3
HOR 213 Landscape Design II	2	2	0	0	3
HOR 114 Landscape Construction	2	2	0	0	3
HOR 215 Landscape Irrigation	2	2	0	0	3
HOR 170 Horticulture Computer Application	1	3	0	0	2
HOR 118 Equipment Operation and Maintenance	1	3	0	0	2
HOR 265 Advanced Plant Materials	1	2	0	0	2
FLO 189 Basic Floral Design	1	2	0	0	2
TRF 152 Landscape Maintenance	2	2	0	0	3
HOR 154 Introduction to Horticulture Therapy	2	4	0	0	4
HOR 293 Selected Topics in Horticulture	1-3	0-6	0	0	3
TRF 110 Intro Turfgrass Culture and Identification	3	2	0	0	4
Total Major Hours					**35**

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
MAT 115 Mathematical Models		2	2	0	3
Total General Education Hours					**6**
Total Credit Hours					**41**

Horticulture Technology Certificates (C15240)

Specialization Certificates

Landscape Design Certificate (C15240-C1)

This certificate is designed to prepare individuals for horticultural careers in the specialized area of landscape design. Course work includes plant materials, design, graphics, and landscape computer applications.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 112 Landscape Design I	2	3	0	0	3
HOR 260 Plant Materials II	2	2	0	0	3

HOR 213 Landscape Design II	2	2	0	0	3
HOR 170 Horticulture Computer Applications	1	3	0	0	2
HOR 265 Advanced Plant Materials	1	2	0	0	2
Total Credit Hours					**16**

Horticulture Production Certificate (C15240-C2)

This certificate is designed to prepare individuals for horticultural careers as growers of nursery and greenhouse crops. Course work includes plant materials, plant science, pest management, propagation and the operation of nurseries and greenhouses.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 162 Applied Plant Science	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
HOR 124 Nursery Operations	2	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
Total Credit Hours					**18**

Landscape Maintenance Certificate (C15240-C3)

This certificate is designed to prepare individuals for horticultural careers in maintaining landscape and turf areas. Course work includes plant materials, soils and fertilizers, pest management and landscape, and turfgrass management.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 166 Soils and Fertilizers	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 116 Landscape Management	2	3	0	0	3
HOR 253 Horticulture Turfgrass	2	2	0	0	3
HOR 118 Equipment Operation and Maintenance	1	3	0	0	2
OR					
HOR 257 Arboriculture Practices					
Total Credit Hours					**17**

Horticulture Therapy Certificate (C15240-C4)

This certificate is designed to prepare individuals for horticultural careers in working with special population groups utilizing horticulture as therapy. Course work includes horticulture therapy, production courses, and social science.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 154 Introduction to Horticulture Therapy	2	4	0	0	4
PSY 150 General Psychology	3	0	0	0	3
Select three of the following courses for a minimum of 8 semester hours:					8
HOR 160 Plant Materials I	2	2	0	0	3
HOR 255 Interiorscapes	1	2	0	0	2
HOR 124 Nursery Operations	2	2	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
FLO 189 Basic Floral Design	1	2	0	0	2
Total Credit Hours					**15**

Hotel and Restaurant Management (A25240)

The Hotel and Restaurant Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, food preparation, guest services, sanitation, menu writing, quality management, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level management positions in food and lodging including front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

All Hotel Restaurant Management classes require student accident medical insurance.

Degree Awarded

The Associate in Applied Science Degree - Hotel and Restaurant Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair - 704-330-6669, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 110 Sanitation and Safety	**2**	**0**			**2**
HRM 110 Introduction to Hospitality	**2**	**0**			**2**
HRM 115 Housekeeping	3	0			3
HRM 115A Housekeeping Lab	0	2			1
HRM 120 Front Office Procedures	3	0			3
HRM 140 Hospitality/Tourism Law	3	0			3
HRM 210 Meetings & Conventions	3	0			3
HRM 220 Food & Beverage Controls	3	0			3
HRM 225 Beverage Management	2	0			2
HRM 235 Hospitality Quality Management	3	0			3
HRM 240 Hospitality Marketing	3	0			3
HRM 280 Hospitality Management Problems	3	0			3
CIS 111 Basic PC Literacy	1	2			2
CUL 135 Food & Beverage Service	2	0			2
CUL 135A Food & Beverage Service Lab	0	2			1
CUL 140 Basic Culinary Skills	2	6			5
CUL 214 Wine Appreciation	1	2			2
ACC 120 Principals of Accounting	3	2			4
COE 112 Cooperative Education	0	0	20		2

Free Elective	3	0		3
General Education Requirements:				
ENG 111 Expository Writing	3	0		3
ENG 114 Professional Research and Reporting	3	0		3
MAT 115 Mathematical Models	3	0		3
ECO 251 Principles of Microeconomics	3	0		3
Choose one course from the following:				
COM 110 Introduction to Communication	3	0		3
COM 231 Public Speaking	3	0		3
Student must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0		3
Total Credit Hours				**71**

Hotel Management Diploma (D25240-D1)

The Hotel and Restaurant Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels. motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, food preparation, guest services, sanitation, menu writing, quality management, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level management positions in food and lodging including front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to Hospitality	**2**	**0**			**2**
HRM 115 Housekeeping	3	0			3
HRM 115A Housekeeping Lab	0	2			1
HRM 120 Front Office Procedures	3	0			3
HRM 120A Front Office Procedures Lab	0	2			1
HRM 140 Hospitality Tourism Law	3	0			3
HRM 235 Hospitality Quality Management	3	0			3
HRM 210 Meetings and Conventions	3	0			3
HRM 240 Hospitality Marketing	3	0			3
HRM 280 Hospitality Management Problems	3	0			3
CUL 110 Sanitation and Safety	2	0			2
COE 112H Cooperative Education	0	0		20	2
CIS 111 Basic PC Literacy	1	2			2
General Education Requirements					
ENG 111 Expository Writing	**3**	**0**			**3**
MAT 115 Mathematical Models	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**40**

Diploma Awarded

A diploma in Hotel Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays, 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Hotel Management Certificate (C25240-C2)

The Hotel Management Certificate curriculum trains students to acquire the skills needed for entry level hotel supervisory positions.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to Hospitality	**2**	**0**			**2**
HRM 115 Housekeeping	3	0			3
HRM 115A Housekeeping Lab	0	2			1
HRM 120 Front Office Procedures	3	0			3
HRM 120A Front Office Procedures Lab	0	2			1
HRM 140 Hospitality Tourism Law	3	0			3
HRM 280 Hospitality Management Problems	3	0			3
COE 112H Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Certificate Awarded

A certificate in Hotel Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays 8 a.m. – 5 p.m. Program Counselors can be reached by callling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Restaurant Management Diploma (D25240-D2)

The Hotel and Restaurant Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, food preparation, guest services, sanitation, menu writing, quality manage-

ment, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level management positions in food and lodging including front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to Hospitality	**2**	**0**			**2**
HRM 140 Hospitality Tourism Law	3	0			3
HRM 235 Hospitality Quality Management	3	0			3
HRM 220 Food and Beverage Control	3	0			3
HRM 225 Beverage Management	2	0			2
HRM 280 Hospitality Management Problems	3	0			3
CUL 135 Food and Beverage Service	2	0			2
CUL 135A Food and Beverage Service Lab	0	2			1
CUL 140 Basic Culinary Skills	2	6			5
CUL 110 Sanitation and Safety	2	0			2
COE 112H Cooperative Education	0	0		20	2
CIS 111 Basic PC Literacy	1	2			2

General Education Requirements

ENG 111 Expository Writing	**3**	**0**			**3**
MAT 115 Mathematical Models	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**39**

Diploma Awarded

A diploma in Restaurant Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays, 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Restaurant Management Certificate (C25240C1)

The Restaurant Management Certificate curriculum prepares students who would like to be employed in entry-level supervisory positions in the restaurant industry.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to Hospitality	**2**	**0**			**2**
HRM 235 Hospitality Quality Management	3	0			3
HRM 220 Food and Beverage Control	3	0			3
HRM 225 Beverage Management	2	0			2
CUL 110 Sanitation and Safety	2	0			2
CUL 135 Food and Beverage Service	2	0			2
CUL 135A Food and Beverage Service Lab	0	2			1
COE 112H Cooperative Education	0	0		20	2
Total Credit Hours					**17**

Certificate Awarded

A certificate in Restaurant Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays 8 a.m. – 5 p.m. Program Counselors can be reached by callling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Human Services Technology (A45380)

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, child care, family services, social services, rehabilitation, correction, and educational agencies.

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Substance Abuse courses may be used in applying for certification by the North Carolina Professional Substance Abuse Certification Board.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work.

A suggested course sequence list is available from the Program Chair.

All Human Services Programs articulate with the Queens College degree in Human and Community Services.

For More Information

The Human Services Technology program is in the Nursing and Human Services Division 704-330-6496. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

For Additional Information on:

- Human Services Technology Program, 704-330-6695
- Substance Abuse Program, 704-330-6380
- Development Disabilities Program, 704-330-4152
- Gerontology Program, 704-330-6624

Admissions

- Complete required CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Complete required Advancement Studies reading and writing classes with a C or better.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HSE 110 Intro to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crisis Intervention	3				3
PSY 150 General Psychology	3				3
SOC 213 Sociology of the Family	3				3
PSY 241 Developmental Psychology	3				3
HSE 120 Interpersonal Relations	3				3
HSE 212 Group Process II	1	2			2
HSE 220 Case Management	2	2			3
HSE 227 Children & Adol. in Crisis	3				3
HSE 127 Conflict Resolution	2	2			3
SAB 110 Substance Abuse Overview	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar I	1				1
COE 121 Co-op Work Experience II				10	1
COE 125 Work Experience Seminar II	1				1
DDT 110 Developmental Disabilities	3				3
GRO 120 Gerontology	3				3

General Education Core Requirements

ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
MAT 115 Mathematical Models OR higher	2	2			3
CIS 110 Intro to Computers	2	2			3
SOC 225 Social Diversity OR					
SOC 210 Intro to Soc	3	0			3
Humanities Elective					

Students must chose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section.

Students must complete one COM course from the following:

COM Elective					
COM 110 Introduction to Communication	3	0	0	0	3
COM 231 Public Speaking	3	0	0	0	3
Total Credit Hours					**73**

Human Services Technology Developmental Disabilities Concentration (A4538A)

The Human Services Technology/Developmental Disabilities program is designed to train students to work with children and adults with physical, mental, and emotional disabilities. Students will specialize in the areas of developmental disabilities and mental retardation.

Students will gain an understanding of the handicapping effects of developmental disabilities in medical, psychological, social, educational, vocational, and economic terms. Fieldwork and clinical experience in community agencies providing comprehensive services to persons with disabilities and their families will be provided.

Graduates should qualify for employment in group homes, foster care homes, respite services, vocational rehabilitation agencies, sheltered workshops, supported employment programs, adult vocational programs, early childhood intervention programs, and other programs for individuals with developmental disabilities and mental retardation.

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology with a concentration in Developmental Disabilities is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Human Services Technology/Substance Abuse courses may be used in applying for certification by the North Carolina Professional Substance Abuse Certification Board.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is fall through spring semester, second year.

A suggested course sequence list is available from the Program Chair.

For More Information

The Developmental Disabilities Program is in the Nursing and Human Services Division 704-330-6496. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

For Additional Information on:

- Developmental Disabilities Program, 704-330-6144
- Human Services Technology Program, 704-330-6695
- Substance Abuse Program, 704-330-6380
- Gerontology Program, 704-330-6624

Admissions

- Complete required CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Complete required Advancement Studies reading and writing classes with a C or better.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HSE 110 Intro to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crisis Intervention	3				3
PSY 150 General Psychology	3				3
SOC 213 Sociology of the Family	3				3
PSY 241 Developmental Psychology	3				3
DDT 110 Developmental Disabilities	3				3
DDT 120 Teaching Developmentally Disabled	3				3
DDT 210 DDT Health Issues	3				3
DDT 220 Program Planning Process	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Co-op Work Experience Seminar I	1				1
GRO 120 Gerontology	3				3
SAB 110 Substance Abuse Overview	3				3
HSE 120 Interpersonal Relations	3				3
COE 121 Co-op Work Experience				10	1
COE 125 Co-op Work Experience Seminar II	1				1

General Education Core Requirements

ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
COM 110 Intro to Communications	3				3
OR					
COM 231 Public Speaking	3				3
MAT 115 Mathematical Models	2	2			3
OR					
MAT 140 Survey of Mathematics	2	2			3
CIS 111 Basic PC Literacy	1	2			2
SOC 225 Social Diversity	3				3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section.					3
Total Credit Hours					**70**

Developmental Disabilities Certificate (C4538A)

Specialization Certificate

Human Services Technology With A Specialization in Developmental Disabilities (C4538A-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of developmental disabilities. Upon completion of the four courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Human Services Technology with a concentration in Developmental Disabilities.

For more information, call the Program Chair at 704-330-6144. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DDT 110 Developmental Disabilities	3				3
*DDT 120 Teaching Developmentally Disabled	3				3
*DDT 210 DDT Health Issues	3				3
*DDT 220 Program Planning Process	3				3
Total Credit Hours					**12**

*Prerequisite or corequisite is required; check course descriptions for details.

Human Services Technology Gerontology Concentration (A4538B)

The Gerontology Program prepares students to specialize in direct service delivery work to older adults and their families. The curriculum provides both theoretical and applied models for understanding issues of aging.

Course work includes physical, psychological and social aspects of the aging process; as well as health, wellness, nutrition, diet, exercise, and well-being. Fieldwork experiences provide opportunities to work in a variety of public and private agencies.

Graduates should qualify for employment in nursing and assisted living facilities, specialized adult care services, respite services, and other programs servicing older adults and their families. Graduates choosing to continue their education may select a variety of programs at senior institutions.

Degree Awarded

The Associate in Applied Science Degree in Human Services concentration in Gerontology is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is fall through spring semesters, second year.

A suggested course sequence list is available from the Program Chair.

For More Information

The Gerontology Program is in the Nursing and Human Services Division 704-330-6624. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

For Additional Information on:

- Gerontology Program, 704-330-6624
- Human Services Technology Program, 704-330-6695
- Substance Abuse Program, 704-330-6380
- Developmental Disabilities Program, 704-330-4152

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Human Services orientation.

• Complete required Advancement Studies reading and writing classes with a C or better.

Major Education Core Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
Students must choose a minimum of three (3) credit hours from the list of approved Humanities courses listed at the end of this section of the catalog	3				3
Students must choose a minimum of three (3) credit hours from a list of approved Communication courses listed at the end of this section of the catalog	3				3
MAT 115 Mathematical Models OR	2	2			3
MAT I40 Survey of Mathematics	3				3
SOC 225 Social Diversity	3				3
CIS 110 Intro to Computers	3				3
Total					**21**

Major Hours Requirements

HSE 110 Introduction to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crisis Intervention	3				3
PSY 150 General Psychology	3				3
SOC 213 Sociology of the Family	3				3
PSY 241 Developmental Psychology	3				3
Total					**25**

Other Major Hours Requirements

DDT 110 Developmental Disabilities	3				3
GRO 120 Gerontology	3				3
GRO 220 Psy/Soc Aspects of Aging	3				3
GRO 230 Health, Wellness & Nutrition	3	2			4
GRO 240 Gerontology Care Managing	2				2
HSE 220 Case Management	2	2			3
SAB 110 Substance Abuse Overview	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar I	1				1
COE 121 Co-op Work Experience II				10	1
COE 125 Co-op Work Experience Seminar II	1				1
Total					**25**
Total Credit Hours					**71**

Gerontology Certificate Program (C4538B)

Specialization Certificates

Human Services Technology Certificate in Gerontology for Registered Nurses (C4538B-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of Gerontology. Upon completion of the four courses, a certificate will be awarded by the college. Students are required to have a current Registered Nurse License. This certificate may be applied to the Associate Degree in Human Services Technology with a concentration in Gerontology. These courses are NBCC approved.

For more information call the Gerontology Program Chair at (704) 330-6624.

General Education Core Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRO 120 Gerontology	3				3
GRO 220 Psychology and Sociological Aspects of Aging	3				3
GRO 230 Health, Wellness and Nutrition	4	2			4
GRO 240 Gerontology Care Managing	2				2
Total Credit Hours					**12**

Human Services Technology Certificate in Gerontological Studies (C4538B-C2)

This certificate is designed to provide the student with a concentrated course of study in the field of Gerontology. Upon completion of the six courses, a certificate will be awarded by the college. This certificate may be applied to the Associate Degree in Human Services Technology with a concentration in Gerontology. These courses are NBCC approved.

For more information call the Gerontology Program Chair at (704) 330-6624.

General Education Core Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRO 120 Gerontology	3				3
GRO 220 Psychology and Sociological Aspects of Aging	3				3
GRO 230 Health, Wellness and Nutrition	4	2			4
GRO 240 Gerontology Care Managing	2				2
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar I	1				1
Total Credit Hours					**14**

Human Services Technology Substance Abuse Concentration (A4538E)

The Human Services Technology/Substance Abuse program prepares students to assist in drug and alcohol counseling, prevention oriented educational activities, rehabilitation with recovering clients, managing community-based programs, counseling in residential facilities and pursuit of four-year degrees.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency psychological/sociological process, the twelve core functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients.

Graduates should qualify for positions as substance abuse counselors, DUI counselors, halfway house workers, residential facility employees, and substance education specialist. The educational and clinical experiences help graduates meet the requirements of the North Carolina Substance Abuse Professional Certification Board for Certified Substance Abuse

Counselor.

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology with a concentration in Substance Abuse is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology and Substance Abuse courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Human Services Technology/Substance Abuse courses may be used in applying for certification by the North Carolina Substance Abuse Professional Certification Board.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is comprised of two semesters, in the second year.

A suggested course sequence is available from the Program Chair.

For More Information

The Substance Abuse Program is in the Nursing and Human Services Division 704-330-6496. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HSE 110 Introduction to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crises Intervention	3				3
PSY 150 General Psychology	3				3
PSY 241 Developmental Psychology	3				3
SOC 213 Sociology of the Family	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar I	1				1
SAB 110 Substance Abuse Overview	3				3
SAB 120 Intake and Assessment	3				3
SAB 125 Substance Abuse Case Management	2	2			3
SAB 135 Addictive Process	3				3
SAB 240 Substance Abuse Issues in Client Services	3				3
HSE 120 Interpersonal Relationships	3				3
OR					
GRO 129 Gerontology	3				3
OR					
DDT 110 Development Disabilities	3				3
SAB 210 Substance Abuse Counseling	2	2			3
SAB 220 Group Techniques and Therapy	2	2			3
SAB 230 Family Therapy	2	2			3
COE 121 Co-op Work Experience				10	1
COE 125 Work Experience Seminar II	1				1

General Education Core Requirements

ENG 111 Expository Writing	3				3
ENG 114 Professional Research & Reporting	3				3
COM 231 Public Speaking	3				3
MAT 115 Mathematical Models or Higher	3				3
Students must select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog.	3				3
CIS 111 Basic PC Literacy	1	2			2
SOC 225 Social Diversity	3				3
OR					
SOC 210 Introduction to Sociology	3				3
Total Credit Hours					**76**

Substance Abuse Certificate Program (C4538E)

Specialization Certificate

Human Services Technology With A Specialization in Substance Abuse (C4538E-C2)

This certificate is designed to provide the student with a concentrated course of study in the field of Substance Abuse. Upon completion of the 5 courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Human Services Technology with a concentration in Substance Abuse. These courses may also be used towards Certified Substance Abuse Counselor (CSAC), a certification acquired through the North Carolina Substance Abuse Professional Certification Board. These courses are also NBCC approved.

For more information, call the Substance Abuse Program Chair at 704-330-6380. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
SAB 110 Substance Abuse Overview	3				3
SAB 120 Intake and Assessment	3				3
SAB 125 Substance Abuse Case Management	2	2			3
SAB 210 Substance Abuse Counseling	2	2			3
SAB 230 Family Therapy	2	2			3
Total Credit Hours					**15**

Industrial Maintenance Technology (A50240)

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course

work my be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

Degree Awarded

The Associate in Applied Science Degree — Industrial Maintenance Technology is awarded by the College upon completion of this program.

For More Information

The Industrial Maintenance Technology program is in the Technical Careers Department. For more information, call the Program Director at 704-330-4452 or the Technical Careers Division office at 704-330-4445, weekdays from 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

Completion of the High School Diploma or equivalent is required.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 125 Diagrams and Schematics	1	2			2
ELC 117 Motors and Control	2	6			4
ELC 128 Introduction to PLC	2	3			3
BPR 111 Blueprint Reading	1	2			2
PLU 111 Topics in Plumbing	1	3			3
WLD 110 Cutting Processes	1	3			2
WLD 112 Basic Welding Processes	1	3			2
HYD 110 Hydraulics/ Pneumatics I	2	3			3
MEC 111 Machine Processes I	2	3			3
MNT 110 Intro to Maintenance	1	3			2
MNT 111 Maintenance Processes	1	3			2
MNT 150 Basic Building Maintenance	1	3			2
ISC 112 Industrial Safety	2				2
ELC 229 Applications Project	1	2			2
OR					
COE 112 Co-op Work Experience I	0	0	0	20	2
COE 123 Co-op Work Experience II	0	0	0	30	3
ELC 127 Software for Technicians	1	2			2
Students must select a minimum of 12 SHC from the following courses:					
ELC 110 Telecom Circuits/ Devices	3	3			4
ELC 113 Basic Wiring I	2	6			4
ELC 114 Basic Wiring II	2	6			4
ELC 115 Industrial Wiring	2	6			4
ELC 116 Telecom Cabling	1	2			3
ELC 118 National Electrical Code	1	2			2
ELC 121 Electrical Estimating	1	2			2
ELC 229 Electrical Maintenance	2	3			3
ELC 228 PLC Applications	2	6			4
AHR 112 Heating Technology	2	4			3
AHR 113 Comfort Cooling	2	4			4
AHR 114 Heat Pump Technology	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 133 HVACR Servicing	2	6			4
MNT 220 Rigging & Moving	1	3			2
MNT 230 Pumps & Pumping Systems	1	3			2
MNT 240 Industrial Equip Troubleshoot	1	3			2
MEC 128 CNC Machining Processes	2	4			4
MEC 112 Machine Processes II	2	3			3
PLU 110 Modern Plumbing	4	15			9
PLU 130 Plumbing Systems	3	9			6
PLU 120 Plumbing Applications	4	15			9
HYD 121 Hydraulics/ Pneumatics II	1	3			2
HYD 210 Advanced Hydraulics	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 122 G.M.A.W. (Mig) Plate/Pipe	1	6			3
WLD 132 G.T.A.W. (Tig) Plate/Pipe	1	6			3
WLD 131 G.T.A.W. (Tig) Plate	2	4			4
ISC 110 Workplace Safety	1				1
ISC 115 Construction Safety	2				2

General Education Core Requirements

ENG 111 Expository Writing	3	0	3
Student must select one of the following:			
COM 110 Introduction to Communications	3	0	3
COM 231 Public Speaking OR	3	0	3
COM 233 Persuasive Speaking	3	0	3
MAT 115 Mathematical Models (or student may choose a minimum of three (3) credit hours from the mathematics courses listed at the end of this section of the catalog)	2	2	3
HUM 115 Critical Thinking (or student may choose a minimum of three (3) credit hours from the list of approved humanities and fine arts courses listed at the end of this section of the catalog)	3	0	3
PSY 150 General Psychology (or student may choose a minimum of three (3) credit hours from the list of approved Social/Behavioral Science courses listed at the end of this section of the catalog)	3	0	3
Total Credit Hours			**73**

Industrial Maintenance Technology Diploma (D50240)

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work my be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

Degree Awarded

The Diploma in Industrial Maintenance is awarded by the College upon completion of this program.

For More Information

The Industrial Maintenance Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4452 or the Technical Careers Department office at 704-330-4445, weekdays from 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

Completion of the High School Diploma or equivalent is required.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 125 Diagrams and Schematics	1	2			2
ELC 117 Motors and Control	2	6			4
BPR 111 Blueprint Reading	1	2			2
PLU 111 Topics in Plumbing	1	3			3
WLD 110 Cutting Processes	1	3			2
WLD 112 Basic Welding	1	3			2
AHR 110 Introduction to Refrigeration	2	6			5
HYD 110 Hydraulics/Pneumatics	2	3			3
MEC 111 Machine Processes I	2	3			3
MNT 110 Intro to Maintenance	1	3			2
MNT 111 Maintenance Processes	1	3			2
MNT 150 Basic Maintenance	1	3			2
ISC 112 Industrial Safety	2				2
ELC 127 Software for Technicians	1	2			2

General Education Core Requirements

*ENG 111 Expository Writing	3	0			3
MAT 115 Mathematical Models or Higher	2	2			3
Total Credit Hours					**42**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Industrial Maintenance Technology Certificates (C50240)

Specialization Certificates

The certificates listed below can be earned in the Industrial Maintenance Technology (C50240) program.

More Information

For more information, call the Program Chair at 704-330-4452, or the Technical Careers Division at 704-330-4555, weekdays from 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admission

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the course description section for details.

Industrial Maintenance Technology with a Specialization in Electrical Power Maintenance (C50240-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 113 Basic Wiring I	2	6			4
ELC 114 Basic Wiring II	2	6			4
ELC 115 Industrial Wiring	2	6			4
Total Credit Hours					**17**

Industrial Maintenance Technology with a Specialization in Electrical Control Maintenance (C50240-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 125 Diagrams and Schematics	1	2			2
ELC 117 Motors and Controls	2	6			4
ELC 128 Introduction to PLC	2	3			3
ELC 228 PLC Applications	2	6			4
ELC 229 Electrical Maintenance	2	3			3
Total Credit Hours					**16**

Industrial Maintenance Technology with a Specialization in Electrical Communications Maintenance (C50240-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 110 Telecom Circuits/Devices	3	3			4
ELC 116 Telecom Cabling	1	2			3
ELC 125 Diagrams and Schematics	1	2			2
BPR 111 Blueprint Reading	1	2			2
Total Credit Hours					**16**

Industrial Maintenance Technology with a Specialization in Electrical General Maintenance (C50240-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 125 Diagrams and Schematics	1	2			2
ELC 117 Motors and Controls	2	6			4
ELC 114 Basic Wiring II	2	6			4
ELC 128 Introduction to PLC	2	3			3

HYD 110 Hydraulics/Pneumatics I	2	3			3
ELC 127 Software for Technicians	1	2			2
Total Credit Hours					**18**

Industrial Maintenance Technology with a Specialization in HVAC General Maintenance (C50240-C5)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 112 Heating Technology	2	4			3
AHR 113 Comfort Cooling	2	4			4
AHR 115 Refrigeration Systems	1	3			2
MNT 110 Introduction to Maintenance	1	3			2
Total Credit Hours					**16**

Industrial Maintenance Technology with a Specialization in Refrigeration Maintenance (C50240-C6)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 113 Comfort Cooling	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 133 HVACR Servicing	2	6			4
MNT 110 Introduction to Maintenance	1	3			2
Total Credit Hours					**17**

Industrial Maintenance Technology with a Specialization in Plumbing Maintenance (C50240-C7)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PLU 111 Topics in Plumbing	1	3			3
PLU 130 Plumbing Systems	3	9			9
BPR 111 Blueprint Reading	1	2			2
MNT 110 Introduction to Maintenance	1	3			2
Total Credit Hours					**16**

Industrial Maintenance Technology with a Specialization in Apartment Maintenance (C50240-C8)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BPR 111 Blueprint Reading	1	2			2
ELC 113 Basic Wiring I	2	6			4
AHR 110 Introduction to Refrigeration	2	6			5
MNT 110 Introduction to Maintenance	1	3			2
MNT 150 Basic Building Maintenance	1	3			2
PLU 111 Topics in Plumbing	1	3			3
Total Credit Hours					**18**

Industrial Maintenance Technology with a Specialization in Industrial/Commercial Building Maintenance (C50240-C9)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BPR 111 Blueprint Reading	1	2			2
MNT 150 Basic Building Maintenance	1	3			2
PLU 111 Topics in Plumbing	1	3			3
AHR 113 Comfort Cooling	2	4			4
ELC 125 Diagrams and Schematics	1	2			2
ELC 114 Basic Wiring II	2	6			4
OR					
ELC 115 Industrial Wiring	2	6			4
Total Credit Hours					**17**

Industrial Maintenance Technology with a Specialization in Welding Maintenance (C50240-C10)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 112 Basic Welding Processes	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2
MNT 110 Introduction to Maintenance	1	3			2
MNT 111 Maintenance Processes	1	3			2
ISC 112 Industrial Safety	2	0			2
WLD 115 S.M.A.W. Plate	2	9			5
OR					
WLD 116 S.M.A.W. Plate/Pipe	1	9			4
Total Credit Hours					**17**

Information Systems (A25260)

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

Degree Awarded

The Associate in Applied Science Degree in Information Systems is awarded by the College upon completion of this program.

For More Information

The Information Systems program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6463 or 704-330-6881, the Program Chair 704-330-6643, a Program Advisor 704-330-6984/5499/6893/6643, or the Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG)

mathematics (MAT), and CIS 115.

- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CIS 110 Introduction to Computers	**2**	**2**			**3**
NET 110 Data Communication/ Networking	**2**	**2**			**3**
CIS 152 Database Concepts and Applications	2	2			3
CIS 116 Introduction to PC Application Development	2	3			3
CIS 219 Advanced PC Application Development	2	3			3
CIS 286 System Analysis and Design	3	0			3
ACC 120 Principles of Accounting I	3	2			4
CIS 121 User Support and Software Evaluation	1	4			3
CIS 215 Hardware Installation/ Maintenance	2	3			3
CSC 139 Visual BASIC Programming	2	3			3
CIS 172 Introduction to the Internet	2	2			3
Networking. Select one:					
CIS 174 Network Systems Manager I	2	2			3
CIS 175 Network Management I	2	2			2
Operating Systems. Select one:					
CIS 147 Operating System – Windows	2	2			3
CIS 245 Operating System - Multi-user	2	3			3
Programming Language. Select one:					
CSC 133 C Programming	2	3			3
CSC 134 C++ Programming	2	3			3
Other Major Electives. Select 6 credit hours:					
COE 112 Co-op Work Experience I	0	0		20	2
BUS 110 Introduction to Business	3	0			3
CIS 154 Database Utilization	1	2			2
CIS 157 Database Programming I	2	2			3
CIS 163 Programming Interfaces Internet	2	2			3
NET 260 Internet Development and Support	3	0			3
CIS 289 Operation Project	2	2			3
CIS 153 Database Applications	2	2			3
CIS 193 Selected Topics in Information Systems	0-3	0-6			3
CSC 193 Selected Topics in Information Systems	1-3	0-6			3
CIS 196 Seminar in Information Systems	1-3	0-6			1
CSC 196 Seminar in Information Systems	0-1				0-3
CSC 148 JAVA Programming	2	3			3
CSC 239 Advanced Visual BASIC	2	3			3
CSC 234 Advanced C++	2	3			3

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communication	3	0			3
Select a minimum of three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0			3
Select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog.	3	0			3
Mathematics. Select one:					
MAT 140 Survey of Mathematics	3	0			3
MAT 161 College Algebra	3	0			3
Total Credit Hours					**73**

Information Systems Network Administration and Support Concentration (A2526D)

Network Administration and Support is a concentration under the curriculum title of Information Systems. This concentration prepares individuals for employment as computer network administrators, computer system support specialists, and related positions through study and applications in computer data communication systems, network principles, computer hardware, computer software, and operating systems.

Students will study network theory and applications. The primary emphasis will be solution of data communications and other computer-related problems through hands-on experience with modem networked computer systems. A heavy emphasis is placed on the study and management of local area networks. The concentration also includes programming, data management, and software installation and support, thus providing the student with a comprehensive computer system and application experience.

Graduates should qualify for employment in business, industry, and government organizations as network administrators, network support specialists, computer specialists, and general computer support technicians.

Degree Awarded

The Associate in Applied Science Degree in Information Systems /Network Administration and Support Concentration is awarded by the College upon completion of this program.

For More Information

The Information Systems with Network Administration and Support Concentration is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6463 or 704-330-6881, the Program Chair 704-330-6643, a Program Advisor 704-330-6282/6203, or the Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG) and mathematics (MAT), and CIS 115.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CIS 110 Introduction to Computers	**2**	**2**			**3**
NET 110 Data Communication/ Networking	**2**	**2**			**3**
CIS 152 Database Concepts and Applications	2	2			3
ACC 120 Principles of Accounting I	3	2			4
CIS 173 Network Theory	2	2			3
CIS 174 Network System Manager I	2	2			3
CIS 175 Network Management I	2	2			3
CIS 274 Network Systems Manager II	2	2			3
CIS 275 Network Management II	2	2			3
NET 260 Internet Deveopment & Support	3	0			3
CIS 287 Network Support	2	2			3
CIS 215 Hardware Installation/ Maintenance	2	3			3
Major Electives (Select a Minimum of 11 Credits)					
COE 112 Co-op Work Experience I	0	0		20	2
CSC 133 C Programming	2	3			3
OR					
CSC 134 C++ Programming	2	3			3
CSC 139 Visual BASIC Programming	2	3			3
CSC 148 JAVA Programming	2	3			3
CIS 184 TCP/IP and NFS	2	2			2
CIS 193 Selected Topics in Information Systems	0-3	0-6			3
CSC 193 Selected Topics in Information Systems	0-3	0-6			3
CIS 196 Seminar in Information Systems	0-1	0-3			1
CSC 196 Seminar in Information Systems	0-1	0-3			1
CIS 216 Software Installation and Maintenance	1	2			2
CIS 245 Operating System - Multi-user	2	3			3
NET 125 Routing and Switching I	1	4			3
NET 126 Routing and Switching II	1	4			3
NET 225 Adv. Router and Switching I	1	4			3
NET 226 Adv. Router and Switching II	1	4			3

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communication	3	0			3
Select a minimum of three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0			3
Select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog.)	3	0			3
Select one mathematics course:					
MAT 140 Survey of Mathematics	3	0			3
MAT 161 College Algebra	3	0			3
Total Credit Hours					**72**

Information Systems Network Administration and Support Concentration Certificate (C2526D)

Specialization Certificates

The certificates listed below can be earned in the Information Systems Network Administration and Support Concentration (A2526D) program.

For More Information

For more information, call the Program Counselor at 704-330-6463 or 704-330-6881, the Program Chair 704-330-6643, or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Cisco Networking Academy Certificate (C2526D-C1)

The Cisco Networking Certificate is a four-course sequence designed to provide students with classroom and laboratory experience in current and emerging networking technologies. The curriculum, designed by Cisco Systems, the world's leading supplier of Internet hardware, prepares students with skills in designing, building, and maintaining computer networks capable of supporting national and global organizations. Students who successfully complete the program may take an optional certification exam and earn industry status as a Cisco Certified Network Associate (CCNA).

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 125 Routing and Switching I	1	4			3
NET 126 Routing and Switching II	1	4			3
NET 225 Router and Switching I	1	4			3
NET 226 Router and Switching II	1	4			3
Total Certificate Credit Hours					**12**

Information Systems Certificates (C25260)

Specialization Certificates

The certificates listed below can be earned in the Information Systems (A25260) program.

For More Information

For more information, call the Program Counselor at 704-330-6463 or 704-330-6881, the Program Chair 704-330-6643, or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Internet Technologies Certificate (C25260-C2)

The Internet Technologies Certificate is designed to prepare the individual to explore the Internet and/or Intranet using Navi-

gational tools and to provide support in developing Internet applications. This certificate will introduce the student to PC and PC software, basic networking terminology and structures, basic Internet terminology, browssers and the use of Netscape Navigator; internet email, basic HTML code, and installing a web page. This certificate extends Internet skills to include: 1) Programming and publishing web pages using HTML and Microsoft FrontPage and 2) development and implementation of internet related tools and services on a web server.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
NET 110 Data Communications/ Networking	2	2			3
CIS 163 Programming Interfaces Internet	2	2			3
CSC 148 JAVA Programming	2	3			3
NET 260 Internet Development and Support	3	0			3
Total Certificate Credit Hours					**18**

Database Certificate (C25260-C3)

The Database Certificate is designed to prepare the individual to use databases more effectively as an end-user and to design, normalize, and program databases. This certificate will introduce the student to Personal Computer (PC) and Mainframe database software, four database models, database design tools, design and normalization criteria, and database languages such as Structured Query Language (SQL).

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to the Computer	2	2			3
CIS 130 Survey of Operating Systems	2	3			3
CIS 152 Database Concepts & Applications	2	2			3
CIS 154 Database Utilization	1	2			2
CIS 153 Database Applications	2	2			3
CIS 157 Database Programming I	2	2			3
Total Certificate Credit Hours					**17**

Information Systems Network Administration and Support Concentration Certificate with a Specialization in PC/Network Support (C2526D-C3)

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 110 Data Communication/ Networking	2	2			3
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CSC 160 Introduction to Internet Programming	2	2			3
COE 110 World of Work	1				1
Total Credit Hours					**13**

Information Systems Network Administration and Support Concentration Certificate with a Specialization in Microsoft Support (C2526D-C4)

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 110 Data Communication/ Networking 223					
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CSC 160 Introduction to Internet Programming	2	2			3
COE 110 World of Work	1				1
Total Credit Hours					**13**

Information Systems Network Administration and Support Concentration Certificate with a Specialization in Novell Support (C2526D-C5)

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 110 Data Communication/ Networking	2	2			3
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CSC 160 Introduction to Internet Programming	2	2			3
COE 110 World of Work	1				1
Total Credit Hours					**13**

Information Systems Network Administration and Support Concentration Certificate with a Specialization in Server Support (C2526D-C6)

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 110 Data Communication/ Networking	2	2			3
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CSC 160 Introduction to Internet Programming	2	2			3
COE 110 World of Work	1				1
Total Credit Hours					**13**

Information Systems Network Administration and Support Concentration Certificate with a Specialization in Linux Support (C2526D-C7)

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 110 Data Communication/ Networking	2	2			3
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CSC 160 Introduction to Internet Programming	2	2			3
COE 110 World of Work	1				1
Total Credit Hours					**13**

Interior Design (A30220)

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of both residential and non-residential interior design. The focus of the studies is technical knowledge, professional practices, and aesthetic principles.

Curriculum content includes residential and non-residential interior design, architectural drafting, computer-aided design, and universal design. Also included are basic design, history of interiors and furnishings, color theory, products, business practices, graphic presentations, and general education courses.

Graduates should qualify for a variety of jobs including residential and commercial interior design, set design, showroom design, and sales positions for furniture, textiles and accessories, and all businesses dealing with interiors.

General Information

Increasingly, our interior living and working spaces are being developed for a more sophisticated society. The Interior Design program at CPCC prepares students to design the interior spaces of today and tomorrow using the best of today's technology.

Degree Awarded

The Associate in Applied Science Degree - Interior Design is awarded by the College upon completion of this program.

For More Information

For more information, contact a Program Counselor at 704-330-6229 or the Program chair 704-330-6437, weekdays from 8:00 a.m. - 5:00 p.m. Interior Design is within the Engineering Technologies Division, 704-330-6437.

Admissions

- A High School Diploma or equivalent is required. GED High School Equivalent and High School Diploma classes are available from CPCC.
- CPCC placement tests are required in English and mathematics. Advancement studies in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Contact the Program chair before entering program.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DES 125 Graphic Presentation I	**0**	**6**	**0**	**0**	**2**
DES 135 Prin & Elem of Design I	**2**	**4**	**0**	**0**	**4**
DES 210 Bus Prac/ Interior Design	2	0	0	0	2
DES 220 Intro to Interior Design	1	6	0	0	3
DES 225 Textiles/Fabrics	2	2	0	0	3
DES 230 Residential Design I	1	6	0	0	3
DES 235 Products	2	2	0	0	3
DES 240 Non-Residential Design I	1	6	0	0	3
ARC 111 Intro to Architecture	**1**	**6**	**0**	**0**	**3**
ARC 114 Architectural CAD (Auto CAD/MicroStation)	1	3	0	0	2
DES 255 Hist/Int & Furn I	3	0	0	0	3
ARC 120 Residential Interior Design	1	6	0	0	3
DES 231 Residential Design II	1	6	0	0	3
DES 241 Non Residential Design II	1	6	0	0	3
DES 275 Furniture Design & Const	2	2	0	0	3
DES 280 Codes & Standards/ Int Des	3	0	0	0	3
DES 245 Sales & Mkt/Int Design	2	0	0	0	2
CIS 111 Basic PC Literacy	1	2	0	0	2
Technical Electives					
(To be selected from list below.)					6
					56
Technical Electives					
DES 115 Color Theory	2	2	0	0	3
DES 126 Graphic Presentation II	0	6	0	0	2
DES 136 Prin & Elem of Design II	2	4	0	0	4
DES 193 Selected Topics in Interior Design	1-3	0-6	0	0	3
DES 250 Store Planning	2	3	0	0	3
DES 257 History of American Homes	3	0	0	0	3
DES 258 Hist Preserv/Restoration	3	2	0	0	4
DES 260 Materials Calc/Int Design	3	0	0	0	3
DES 285 Capstone/Interior Design	2	6	0	0	4
DES 298 Seminar in Interior Design	1-3	0-6	0	0	3
ARC 160 Residential Design	1	6	0	0	3
COE 112 Cooperative Work Experience I	0	0	0	20	2
COE 122 Cooperative Work Experience II	0	0	0	20	2
General Education Core Requirements					
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
MAT 115 Mathematical Models	2	2	0	0	3
ART 114 Art History Survey I	3	0	0	0	3
PSY 150 General Psychology	3	0	0	0	3
COM 110 Intro. to Communication	3	0	0	0	3
					18
Total Credits					**74**

Internet Technologies (A25290)

Curriculum Description

The Internet Technologies curriculum is designed to prepare graduates for employment with organizations that use computers to disseminate information via the Internet internally, externally, and/or globally. The curriculum will prepare students to create and implement these services.

Course work includes computer and Internet terminology and operations, logic, operating systems, database and data communications/networking, and related topics. Studies will provide opportunities for students to implement, support, and customize industry-standard Internet technologies.

Graduates should qualify for career opportunities as webmasters, Internet and intranet administrators, Internet applications specialists, Internet programmers and Internet technicians. Government institutions, industries, and other organizations employ individuals who posses the skills taught in this curriculum.

Degree Awarded

The Associate in Applied Science Degree in Internet Technologies is awarded by the College upon completion of the program.

For More Information

The Internet Technologies program is in the Information Technology Division. For more information, call one of the Program Counselors at 704-330-6881 or 704-330-6463,or the Program Chair at 704-330-6893 or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; the prerequisite(s) are listed in parentheses after the course. Check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to Computers	**2**	**2**			**3**
CIS 115 Intro to Prog & Logic (pr test/MAT 070)	**2**	**2**			**3**
CIS 152 Database Concepts & Apps (pr CIS 110/115)	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CIS 245 Operating System - Multi-user	2	3			3
COE 110 World of Work	1	0			1
CSC 160 Intro to Internet Programming (pr CIS 172)	2	2			3
ITN 140 Web Development Tools	2	2			3
ITN 150 Internet Protocols	2	2			3
ITN 160 Principles of Web Design	2	2			3
ITN 180 Active Server Programming	2	2			3
NET 110 Datacomm/Networking	**2**	**2**			**3**
NET 260 Internet Development & Support (pr NET 110)	3	0			3
Career Tract (Students Must Complete 6 Sem Hours Of A Group)					
ITN 260 Intro to E-Commerce	2	2			3
MKT 224 International Marketing	3	0			3
or					
ITN 110 Intro to Web Graphics	2	2			3
ITN 210 Advanced Web Graphics (pr ITN 110)	2	2			3
or					
ITN 120 Intro to Internet Multimedia	2	2			3
ITN 220 Advanced Internet Multimedia (pr ITN 120)	2	2			3
or					
CIS 153 Database Applications (pr CIS 152)	2	2			3
CIS 157 Database Programming (pr CIS 130, CIS 152, CIS 153)	2	2			3
or					
CIS 174 Network System Manager I	2	2			3
CIS 274 Network System Manager II (pr CIS 174)	2	2			3
or					
CSC 143 Object-Oriented Programming	2	3			3
CSC 148 Java Programming	2	3			3
or					
NET 125 Routing and Switching I	1	4			3
NET 126 Routing and Switching II (pr NET 125)	1	4			3
Technical Electives (Students Must Complete 6 Sem Hours Of This Group)					
CET 111 Computer Upgrade/Repair I	2	3			3
CIS 163 Programming Interfaces Internet (pr CIS 110)	2	2			3
CIS 286 System Analysis and Design (pr CIS 115)	3	0			3
COE 111Co-op Work Experience I	0	0		10	1
COE 113 Co-op Work Experience I	0	0		30	3
CSC 139 Visual BASIC Programming	2	3			3
ITN 240 Internet Security	2	2			3
ITN 250 Implementing Internet Services	2	2			3
MKT 120 Principles of Marketing	3	0			3
NET 225 Advanced Routing and Switching I	1	4			3
NET 226 Advanced Routing and Switching II	1	4			3
General Education Core Requirements					
COM 110 Introduction to Communication	3	0			3
or					
COM 120 Interpersonal Communication	3	0			3
or					
COM 231 Public Speaking	3	0			3
ENG 111 Expository Writing (pr test/ENG 090)	**3**	**0**			**3**
ENG 114 Prof Research and Reporting (pr ENG 111)	3	0			3
MAT 140 Survey of Mathematics (pr test/MAT 070)	3	0			3
Behavioral/Social Science Elective	3	0			3
Humanities/Fine Arts Elective	3	0			3
Total Credit Hours					**67**

**pr means prerequisite. The course listed after the pr must be taken first.*

Internet Technologies Certificate (C25290-C1)

Specialization Certificate

The certificate listed below can be earned in the Internet Technologies (C25290) Program.

More Information

For more information, call the Program Chair at 704-330-6893, or the Information Technology Office at 704-330-6549, weekdays from 8:00 Am - 5:00 PM. Program Counselors can be reached by calling 704-330-6881 or 6463.

Admissions

A High School Diploma or equivalent is required to enter the program and an official copy must be on file at the college. Skills and proficiencies should be developed in writing, math, computer literacy, and science.

CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.

A counseling/orientation appointment follows placement testing.

Internet Technologies Certificate with a Specialization in Web Page Development (C25290-C1)

	Class	Lab	Hours Clinical	Work Exper.	Credits
NET 110 Data Communication/ Networking	2	2			3

CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CSC 160 Introduction to Internet Programming	2	2			3
COE 110 World of Work	1				1
Total Credit Hours					**13**

Interpreter Education (A55300)

The Interpreter Education curriculum prepares individuals to work as entry-level sign language interpreters who will provide communication access in interview and interactive settings. In addition, this curriculum provides in-service training for working interpreters who want to upgrade their skills.

Course work includes the acquisition of American Sign Language (ASL); grammar, structure, and socio-linguistic properties, cognitive processes associated with interpretation between ASL and English; the structure and character of the deaf community; and acquisition of consecutive and simultaneous interpreting skills.

Entry-level jobs for para-professional interpreters are available in educational systems or a variety of community settings. Individuals may choose from part-time, full-time, or self-employment/ free-lance positions, or apply language skills to other human service related areas.

Degree Awarded

The Associate in Applied Science Degree - Interpreter Education is awarded by the College upon completion of this program.

Program Accreditation

Interpreter Education Associate and Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit.

For More Information

The Interpreter Education program is in the Nursing and Human Services Division. For more information, call the Program chair at 704-330-6829, weekdays from 8 a.m. - 5 p.m. The Program Counselors can be reached by calling 704-330-6468. Check our website at www.cpcc.cc.nc.us/northeast_division.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, reading and mathematics.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111 Co-op Work Experience				10	1
IPP 111 Introduction to Interpretation	2				2
IPP 112 Comparative Cultures	4				4
IPP 161 Consecutive Interpreting	2	6			5
IPP 150 Linguistics of ASL	2				2
IPP 152 ASL/English Translation	3				3
COE 115 Work Experience Seminar I	1				1
IPP 221 Simultaneous Interpreting I	2	6			5
IPP 153 Introduction to Discourse Analysis	1	4			3
IPP 130 Analytical Skills for Int	1	4			3
IPP 151 ASL Numbers & Fingerspell	1	2			1
IPP 240 Ethical Stnds & Practices	3				3
IPP 222 Simultaneous Interpret II	2	6			5
COE 125 Work Exp Seminar II	1				1
HSE 120 Interpersonal Relationships	3				3
ASL 111 Elementary ASL I	3				3
ASL 181 ASL Lab I		2			1
ASL 112 Elementary ASL II	3				3
ASL 182 ASL Lab II		2			1
COE 121 Co-op Work Experience II				10	1

General Education Core Requirements

ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
COM 231 Public Speaking	3				3
MAT 140 Survey of Mathematics	3				3
HUM Electives	3				3
CIS 111 Basic PC Literacy	1	2			2
Students must *select one*	3				3
PSY 150 General Psychology					
SOC 210 Introduction to Sociology					
SOC 213 Sociology of the Family					
SOC 220 Social Problems					
Total Credit Hours					**71**

Interpreter Education Certificates (C55300)

Specialization Certificates

The certificates listed below can be earned in the Interpreter Education Program.

For More Information

For more information, call the Program Chair at 704-330-6829, or the Nursing and Human Services Division office at 704-330-6496. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

Admissions

- Completion of a High School Diploma or equivalent is required.
- Many courses have prerequisites; check the Course Descriptions section for details.

Interpreter Education With a Specialization in Introduction to American Deaf Community (C55300-C1)

This certificate is designed to prepare individuals in their given careers, to communicate at an introductory level with and have a basic understanding of the American Deaf community. This certificate can be applied toward the Interpreter Education Degree program.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ASL 111 Elementary ASL I	3				3
ASL 181 ASL I Lab		2			1
ASL 112 Elementary ASL II	3				3
ASL 182 ASL II Lab		2			1
IPP 112 Comparative Cultures	4				4
Total Credit Hours					**12**

Interpreter Education With a Specialization in ASL Studies (C55300-C2)

This certificate is designed to prepare individuals in their given careers, to communicate at and interact with the American Deaf community for the purpose of giving and gathering infor-

mation pertinent to their jobs. This certificate can be applied toward the Interpreter Education Degree program.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
IPP 112 Comparative Cultures	4				4
IPP 150 Linguistics of ASL	2				2
IPP 151 ASL Numbers & Fingerspelling		2			1
IPP 152 ASL/English Translation	3				3
IPP 153 Introduction to Discourse Analysis	3				3
Total Credit Hours					**13**

Interpreter Education With a Specialization in Consecutive Interpreting (C55300-C3)

This certificate is designed to prepare individuals to interpret consecutively between American Sign Language and English users, in situations where there is no time limit or parameters imposed on the completion of the task. This skill would be applicable to interpreting forms and basic interviews. This certificate can be applied toward the Interpreter Education Degree program.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
IPP 111 Introduction to Interpretation	2				2
IPP 130 Analytical Skills for Interpreting	1	4			3
IPP 150 Linguistics of ASL	2				2
IPP 161 Consecutive Interpret.	2	6			5
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar I	1				1
Total Credit Hours					**14**

Interpreter Education With a Specialization in Simultaneous Interpreting (C55300-C4)

This certificate is designed to prepare individuals to interpret simultaneously at an entry level of skill, between American Sign Language and English users. This would be applicable to interpreting in interview and interactive settings. This certificate can be applied toward the Interpreter Education Degree program.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
IPP 240 Ethical Standards & Practices	3				3
IPP 221 Simultaneous Interpreting I	2	6			5
IPP 222 Simultaneous Interpreting II	2	6			5
COE 121 Co-op Work Experience II				10	1
COE 125 Work Experience Seminar II	1				1
Total Credit Hours					**15**

Law Enforcement Training, Basic

See Basic Law Enforcement Training

Machining Technology (A50300)

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

The Machining Technology Program at CPCC provides students the opportunity to expand their knowledge and skills in CNC programming and a broader knowledge in CNC Graphics Programming. All projects are performed on full-scale industrial equipment used in local industry.

Degree Awarded

The Associate in Applied Science Degree-Machining Technology will be awarded by the College upon completion of the program.

Note

Students who do not take program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

For More Information

The Machining Technology Program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704-330-6463 or 704-330-6881 or the Machining Technology Program Chair at 704-330-6608, weekdays from 8 a.m. to 5 p.m.

Admissions

- High School Diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics. Advancement Studies mathematics and English courses are available for students to build skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 111X Machining Technology I	1	6	0	0	3
MAC 111Y Machining Technology I	1	6	0	0	3
MAC 112X Machining Technology II	1	6	0	0	3
MAC 112Y Machining Technology II	1	6	0	0	3
MAC 113X Machining Technology III	1	6	0	0	3
MAC 113Y Machining Technology III	1	6	0	0	3
MAC 121 Introduction to CNC	2	0	0	0	2
MAC 122 CNC Turning	1	3	0	0	2
MAC 131 Blueprint Reading/ Machining I	1	2	0	0	2
MAC 132 Blueprint Reading/ Machining II	1	2	0	0	2
MAC 114 Introduction to Metrology	2	0	0	0	2
MAC 151 Machining Calculations	1	2	0	0	2
MAC 152 Advanced Machining Calculations	1	2	0	0	2
MAC 124 CNC Milling	1	3	0	0	2
MAC 222 Advanced CNC Turning	1	3	0	0	2

MAC 224 Advanced CNC Milling	1	3	0	0	2
MAC 231 CNC Graphics Programming-Turning	1	4	0	0	3
MAC 232 CNC Graphics Programming-Milling	1	4	0	0	3
MEC 172 Introduction to Metallurgy	2	2	0	0	3
DFT 111 Technical Drafting I	1	3	0	0	2
DFT 151 CAD I	2	3	0	0	3
Technical Electives					
(The following are suggested electives)	3	0	0	0	3
					55
DFT 121 Introduction to Geometric Dimensioning and Tolerancing	1	2	0	0	2
ISC 132 Manufacturing Quality Control	2	3	0	0	3
WLD 112 Basic Welding Process	1	3	0	0	2
COE 112 Cooperative Education I	0	0	0	20	2
COE 122 Cooperative Education II	0	0	0	20	2
MAC 192 Selected Topics in CNC Prog Machining	0-2	0-6	0	0	2
MAC 292 Selected Topics in CNC Oper. Machining	0-2	0-6	0	0	2
General Education Core Requirements					
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3
+MAT 115 Mathematical Models	2	2	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					18
Total Credit Hours					**73**

+ MAT 121 Algebra/Trigonometry may substitute for MAT 115.

Machining Technology Certificates (C50300)

Specialization Certificate

CNC Programming and Operations Certificate (C50300-C1)

This Certificate provides study in CNC programming and machining operations. Coursework includes manual programming, set-up and operation, and provides in-depth study in both 2-D and 3-D Graphics programming. Coursework will apply toward the Machining Technology AAS degree program.

Certificate Awarded

A Certificate is awarded in CNC Programming and Operations upon completion of this program

For More Information

The Machining Technology Program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704-330-6463 or 704-330-6881 or the Machining Technology Program Chair at 704-330-6608, weekdays from 8 a.m. to 5 p.m.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as a foundation of a career in this area.
- Individuals entering this certificate program should have a basic knowledge of manual machining and/or minimum experience with CNC machine tools.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 121 Introduction to CNC	2	0	0	0	2
MAC 122 CNC Turning	1	3	0	0	2
MAC 124 CNC Milling	1	3	0	0	2
MAC 222 Advanced CNC Turning	1	3	0	0	2
MAC 224 Advanced CNC Milling	1	3	0	0	2
MAC 231 CNC Graphics Prog -Turning	1	4	0	0	3
MAC 232 CNC Graphics Prog-Milling	1	4	0	0	3
Total Credit Hours					**16**

Fundamentals of Machine Tools Certificate (C50300-C2)

This Certificate provides the graduate with enhanced skills in the set up and operation of conventional machine tools. Coursework will apply toward the Machining Technology AAS Degree Program.

Certificate Awarded

A Certificate is awarded in Fundamental of Machine Tools by the College upon completion of this program.

For More Information

The Machining Technology Program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704-330-6463 or 704-330-6881 or 704-330-6463 or the Machining Technology Program Chair at 704-330-6608, weekdays from 8:00 a.m. to 5:00 p.m.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as a foundation of a career in this area.
- Some courses have prerequisites; check the Course Description section for details.

Fundamentals of Machine Tools Certificate (C50300-C2)

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 111X Machining Technology I	1	6	0	0	3
MAC 111Y Machining Technology I	1	6	0	0	3
MAC 114 Introduction to Metrology	2	0	0	0	2
MAC 131 Blueprinting Reading/ Machining I	1	2	0	0	2
MAC 151 Machining Calculations	1	2	0	0	2
MAC 112X Machining Technology II-A	1	6	0	0	3
MAC 112Y Machining Technology II-B	1	6	0	0	3
Total Credit Hours					**18**

Basic Machining Skills Certificate (C50300-C3)

This Certificate enables the graduate to enter the machining profession on an entry level. This program will include basic

hands-on activities on equipment commonly used in industry. Coursework will apply toward the Machining Technology AAS Degree Program.

Certificate Awarded

A Certificate is awarded in Basic Machining Skills by the College upon completion of this program.

For More Information

The Machining Technology Program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704-330-6463 or 704-330-6881 or 704-330-6463 or the Machining Technology Program Chair at 704-330-6608, weekdays fro 8:00 a.m. to 5:00 p.m.

Admissions

Completion of a High School Diploma or equivalent is encouraged as a foundation of a career in this area.

Basic Machining Skills Certificate (C50300-C3)

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 111X Machining Technology I *(Basic Lathe)*	1	6	0	0	3
MAC 111Y Machining Technology I *(Basic Milling)*	1	6	0	0	3
MAC 114 Introduction to Metrology	2	0	0	0	2
MAC 131 Blueprinting Reading/ Machining I	1	2	0	0	2
MAC 151 Machining Calculations	1	2	0	0	2
COE 110 World of Work	1	0	0	0	1
Total Credit Hours					**13**

Machining Technology Diploma (D50300)

The Machining Technology Diploma gives individuals the opportunity to gain entry level employment in the metal working industries. A basic knowledge of conventional machine tools, CNC programming and CNC operations is provided by hands-on activities on equipment commonly used in industry. Coursework will apply toward the Machining Technology AAS Degree program.

Degree Awarded

A Diploma in Machining Technology is awarded by the College upon completion of this program.

Note

Students who do not enroll in program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

For More Information

The Machining Technology program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704-330-6463 or 704-330-6881 or the Machining Technology Program Chair at 704-330-6608, weekdays between 8 a.m. and 5 p.m.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as a foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 111X Machining Technology I	1	6	0	0	3
MAC 111Y Machining Technology I	1	6	0	0	3
MAC 112X Machining Technology II	1	6	0	0	3
MAC 112Y Machining Technology II	1	6	0	0	3
MAC 113X Machining Technology III	1	6	0	0	3
MAC 113Y Machining Technology III	1	6	0	0	3
MAC 121 Introduction to CNC	2	0	0	0	2
MAC 122 CNC Turning	1	3	0	0	2
MAC 131 Blueprint Reading/ Machining I	1	2	0	0	2
MAC 132 Blueprint Reading/ Machining II	1	2	0	0	2
MAC 114 Introduction to Metrology	2	0	0	0	2
MAC 151 Machining Calculations	1	2	0	0	2
MAC 152 Advanced Machining Calculations	1	2	0	0	2
MAC 124 CNC Milling	1	3	0	0	2
MAC 222 Advanced CNC Turning	1	3	0	0	2
MAC 224 Advanced CNC Milling	1	3	0	0	2
MEC 172 Introduction to Metallurgy	2	2	0	0	3

General Education Requirements:

+*ENG 101 Applied Communications	3	0	0	0	3
Students must choose 3 credit hours from the list of approved humanities courses or from the list of behavioral and social sciences listed at the end of this section of the catalog.	3	0	0	0	3
					6
Total Credit Hours					**47**

+ ENG 111 Expository Writing may be substituted for ENG 101

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Manufacturing Engineering Technology (A40300)

The Manufacturing Engineering Technology curriculum prepares individuals for employment in the fields of manufacturing technology. The curriculum emphasizes the theory and training required to effectively augment manufacturing engineers in industry.

Courses include a background in mechanical and related theory and the use of manufacturing and analytical equipment. Industrial standards such as EPA, OSHA, GD&T, and ISO are discussed. Computer usage for process control and effective communication skills is emphasized.

Graduates of this curriculum qualify for positions as engineering technicians. Some of the responsibilities include drafting, process specification, tooling selection, automation programming, project facilitation, and supervision. Certification is available through organizations such as ASQC, SME, and NICET.

Degree Awarded

The Associate in Applied Science Degree - Manufacturing Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Manufacturing Engineering Technology program at CPCC is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology

Note

The Manufacturing Engineering Technology curriculum at Central Piedmont Community College is a comprehensive program featuring extensive hands-on CAD/CAM instruction in practical application of both fundamental and highly specialized manufacturing engineering technology principles. Students advance from basic courses to specialized manufacturing, industrial, and mechanical engineering technology courses that provide concentrated study in the practical application of state-of-the-art technological knowledge and skills needed in Robotics/Automation and CAD/CAM.

Completion of this program requires that students use college-level algebra, trigonometry, and physics in applying scientific principles to technological problems.

For More Information

The Manufacturing Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program Counselor at 704-330-6463 or 704-330-6881 or the Manufacturing Engineering Technology Program Chair at 704-330-6553, weekdays, 8 a.m. to 5 p.m.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an engineering technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advance ment Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 111E Introduction to Electricity	2	2	0	0	3
ISC 112 Industrial Safety	2	0	0	0	2
ISC 132 Manufacturing Quality Control	2	3	0	0	3
MEC 111X Machine Processes 1 (Conventional)	1	2	0	0	1.7
MEC 111Y Machine Processes 1 (CNC)	1	1	0	0	1.3
MEC 161 Manufacturing Processes	3	0	0	0	3
MEC 180 Engineering Materials	2	3	0	0	3
MEC 251 Statics	2	2	0	0	3
MEC 252 Strength of Materials	2	2	0	0	3
MEC 265 Fluid Mechanics	2	2	0	0	3
DFT 111 Technical Drafting I	1	3	0	0	2
DFT 121 Introduction to G. D. & T.	1	2	0	0	2
DFT 151 CAD I	2	3	0	0	3
ISC 212 Metrology	1	2	0	0	2
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
PHY 132 Physics-Elec & Magnetism	3	2	0	0	4
ISC 211 Production Planning	2	2	0	0	3
ATR 112 Intro. to Automation	2	3	0	0	3
Technical Elective (3 credit hours to be chosen from the following)					3
					61
CIS 111 Basic PC Literacy	1	2	0	0	2
COE 111 Co-Op Work Experience I	0	0	0	10	1
COE 112 Co-Op Work Experience I	0	0	0	20	2
COE 121 Co-Op Work Experience II	0	0	0	10	1
COE 122 Co-Op Work Experience II	0	0	0	20	2
MEC 267 Thermal Systems	2	2	0	0	3
MEC 275 Engineering Mechanisms	2	2	0	0	3
MEC 293 Selected Topics in Mfg. Egr. Tech.	2	2	0	0	3
PLA 110 Introduction to Plastics	2	0	0	0	2

General Education Core Requirements:

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of 3 credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					15
Total Credit Hours					**76**

Mechanical Drafting Technology Certificate (C50340)

Specialization Certificate

Mechanical CAD Operations Certificate (C50340-C1)

This certificate provides for study in the use of CAD software as a drafting tool. Coursework includes manual drafting, advanced training using CAD to produce 2-dimensional and 3-dimensional drawings, and dimensioning and tolerancing techniques. Coursework will apply toward the Mechanical Drafting Technology diploma program.

Certificate Awarded

A Certificate is awarded in Mechanical CAD Operations upon completion of this program.

For More Information

The Mechanical Drafting Program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704-330-6463 or 704-330-6881, or the Mechanical Drafting Program Chair at 704-330-6553 weekdays from 8 a.m. to 5 p.m.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as a foundation for a career in this area.
- Individuals entering this certificate program should have a

basic understanding of technical drawing or reading blueprints.

- Many courses have prerequisites; see the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DDF 221 Design Drafting Project	0	4	0	0	2
DFT 111 Technical Drafting 1	1	3	0	0	2
DFT 112 Technical Drafting 2	1	3	0	0	2
DFT 121 Introduction to Geometric Dimensioning and Tolerancing	1	2	0	0	2
DFT 151 CAD 1	2	3	0	0	3
DFT 152 CAD 2	2	3	0	0	3
Total Credit Hours					**14**

Mechanical Drafting Technology Diploma (D50340)

The Mechanical Drafting Technology curriculum prepares technicians to produce drawings of mechanical parts, components of mechanical systems, and mechanisms. CAD and the importance of technically correct drawings and designs based on current standards are emphasized.

Course work includes mechanical drafting, CAD, and proper drawing documentation. Concepts such as machine shop processes, basic materials, and physical sciences as they relate to the design process are also included. The use of proper dimensioning and tolerance techniques is stressed.

Graduates should qualify for employment in mechanical areas such as manufacturing, fabrication, research and development, and service industries.

Diploma Awarded

A Diploma in Mechanical Drafting Technology is awarded by the College upon completion of this program.

Students may apply appropriate courses toward the Mechanical or Manufacturing Engineering Technology programs.

Note

The Mechanical Drafting Technology program at CPCC is a comprehensive Computer Aided Drafting (CAD) curriculum that emphasizes CAD throughout the program from basic part drawings to complete detailing and assembly and working drawings.

For More Information

The Mechanical Drafting Technology program is in the Engineering Technologies Division. For more information, call the Program Counselor at 704-330-6463 or 704-330-6881 or the Program Chair at 704 - 330-6553, weekdays, 8 a.m. to 5 p.m.

Admissions

- A High School Diploma or equivalent is required. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DFT 111 Technical Drafting 1	1	3	0	0	2
DFT 112 Technical Drafting 2	1	3	0	0	2
DFT 151 CAD 1	2	3	0	0	3
DFT 152 CAD 2	2	3	0	0	3
DDF 221 Design Drafting Project	0	4	0	0	2
DFT 121 Intro to G. D. & T.	1	2	0	0	2
ISC 212 Metrology	1	2	0	0	2
MEC 111X Machine Processes I (Conventional)	1	2	0	0	1.7
MEC 111Y Machine Processes I (CNC)	1	1	0	0	1.3
MEC 161 Manufacturing Processes 1	3	0	0	0	3
PHY 110 Conceptual Physics	3	0	0	0	3
PHY 110A Conceptual Physics Lab	0	2	0	0	1
MEC 172 Introduction to Metallurgy	2	2	0	0	3
CIS 111 Basic PC Literacy	1	2	0	0	2
Technical Electives					3
(Select 3 hours from the following courses)					**34**
COE 111 Co-op Work Experience I	0	0	0	10	1
COE 112 Co-op Work Experience I	0	0	0	20	2
COE 121 Co-op Work Experience 2	0	0	0	10	1
COE 122 Co-op Work Experience 2	0	0	0	20	2
ISC 112 Industrial Safety	2	0	0	0	2
ATR 112 Introduction to Automation	2	3	0	0	3
ISC 132 Manufacturing Quality Control	2	3	0	0	3
MEC 265 Fluid Mechanics	2	2	0	0	3
MEC 293 Selected Topics in Mechanical Engineering Technology	2	2	0	0	3
General Education Core Requirements					
ENG 111 Expository Writing	3	0	0	0	3
MAT 115 Mathematical Models	3	0	0	0	3
					6
Total Credit Hours					**40**

Mechanical Engineering Technology (A40320)

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Coursework includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

Degree Awarded

The Associate in Applied Science Degree - Mechanical

Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Mechanical Engineering Technology Program at CPCC is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

The Mechanical Engineering Technology curriculum at Central Piedmont Community College features extensive use of CAD/CAM systems in the practical applications of both fundamental and highly specialized mechanical engineering technology principles. Students advance from basic courses to specialized mechanical engineering technology courses that furnish concentrated study in the practical application of state-of-the-art technological knowledge and skills needed in today's high technology industry.

Completion of the program requires that students use college-level algebra, trigonometry, and physics in the application of scientific principles to technical problems.

For More Information

The Mechanical Engineering Technology Program is in the Engineering Technologies Division. For more information, call the Program Counselor at 704-330-6463 or 704-330-6881 or the Program Chair at 704-330-6553, weekdays from 8 a.m. to 5 p.m.

Admissions

- A High School Diploma or equivalent is required. High schools students preparing for an engineering technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies English and mathematics courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DFT 111 Technical Drafting	1	3	0	0	2
DFT 151 CAD I	2	3	0	0	3
PHY 131 Physics - Mechanics	3	2	0	0	4
DFT 121 Introduction to G.D. & T	1	2	0	0	2
DFT 152 CAD 2	2	3	0	0	3
ISC 212 Metrology	1	2	0	0	2
MEC 161 Manufacturing Processes I	3	0	0	0	3
MEC 275 Engineering Mechanisms	2	2	0	0	3
MEC 180 Engineering Materials	2	3	0	0	3
MEC 265 Fluid Mechanics	2	2	0	0	3
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
MEC 111X Machine Processes 1 (Conventional)	1	2	0	0	1.7
MEC 111Y Machine Processes 1 (CNC)	1	1	0	0	1.3
MEC 251 Statics	2	2	0	0	3
MEC 252 Strength of Materials	2	2	0	0	3
MEC 267 Thermal Systems	2	2	0	0	3
MEC 270 Machine Design	3	3	0	0	4
PHY 132 Physics - Electricity and Magnetism	3	2	0	0	4
Technical Electives (3 credit hours to be selected from the following courses)					3
					60
COE 111 Co-op Work Experience I	0	0	0	10	1
COE 112 Co-op Work Experience I	0	0	0	20	2
COE 121 Co-op Work Experience 2	0	0	0	10	1
COE 122 Co-op Work Experience 2	0	0	0	20	2
ISC 112 Industrial Safety	2	0	0	0	2
CIS 111 Basic PC Literacy	1	2	0	0	2
MEC 293 Selected Topics in Mechanical Engineering Technology	2	2	0	0	3
PLA 110 Introduction to Plastics	2	0	0	0	2
ELC 111E Introduction to Electricity	2	2	0	0	3
ATR 112 Intro. to Automation	2	3	0	0	2
ISC 132 Mfg. Quality Control	2	0	0	0	2
General Education Core Requirements					
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					15
Total Credit Hours					**75**

Medical Assisting (A45400)

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting. Individuals desiring a career in Medical Assisting should, if possible, take biology, mathematics, keyboarding, and computer courses prior to entering the program. Students are admitted to the Medical Assisting program Fall, Spring and Summer semesters.

Degree Awarded

A Degree in Medical Assisting is awarded by the college

upon completion of the degree requirements. Graduates of this CAAHEP Accredited program may apply to take the certification examination administered by the Certifying Board of the American Association of Medical Assistants.

Note

ACA 118 College Study Skills is highly recommended before or with entrance in the Medical Assisting program.

BIO 090 is strongly recommended for students who have not taken a biology course within the past five (5) years.

Progression in this program is dependent on satisfying course prerequisites, corequisites, and maintaining a grade of C or better for all courses in the curriculum.

Students must have current CPR Certification prior to the externship (MED 260).

In addition to tuition, lab fees, and textbooks, this program has additional costs that include uniforms, lab coats, personal protective equipment, physical examination, application fees for sitting for the Certification Exam, and a CPCC Medical Assisting pin.

For More Information

The Medical Assisting Program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays from 8 a.m. - 5 p.m. Program counselors can be reached by calling 704-330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts (if applicable).
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with a C or better.
- Students must have proficiency to key at an acceptable speed and accurate level using the touch system. A student must demonstrate basic computer competencies through coursework or testing. The Division Director of Computer Office and Information Systems will determine equivalent competencies. The above must be satisfied by the end of the student's first semester.
- Present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 110 Orientation to Medical Assisting	1	0	0		1
MED 112 Orientation to Clinic Setting	0	0	3		1
MED 118 Medical Law and Ethics	2	0	0		2
MED 121 Medical Terminology I	3	0	0		3
MED 122 Medical Terminology II	3	0	0		3
MED 130 Administrative Office Procedures I	1	2	0		2
MED 131 Administrative Office Procedures II	1	2	0		2
MED 134 Medical Transcription	2	2	0		3
MED 138 Infection/Hazard Control	2	0	0		2
MED 140 Exam Room Procedure I	3	4	0		5
MED 150 Laboratory Procedure I	3	4	0		5
MED 260 Medical Clinical Extemship	0	0	15		5
MED 116 Introduction to Anatomy and Physiology	3	2	0		4
MED 114 Professional Interaction in Health Care	1	0	0		1
MED 276 Patient Education	1	2	0		2
MED 262 Clinical Perspectives	1	0	0		1

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
Total Credit Hours				**48**

After completion of the diploma program, requirements for A.A.S. Degree program are as follows:

MED 270 Symptomatology	2	2	0	3
MED 272 Drug Therapy	3	0	0	3
MED 274 Diet Therapy/Nutrition	3	0	0	3
OR				
MED 232 Medical Insurance Coding	1	3	0	2
BUS 137 Principles of Management OR HIT 218 Management OR BUS 135 Principles of Supervision	3	0	0	3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	3
Students must choose a minimum of 3 credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog:	3	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	3
COM 231 Public Speaking OR COM 110 Introduction to Communication OR COM 120 Interpersonal Communication	3	0	0	3
Total Credit Hours				**71-72**

Medical Assisting (D45400) Diploma

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting. Individuals desiring a career in Medical Assisting should, if possible, take biology, mathematics, keyboarding, and computer courses prior to entering the program. Students are admitted to the Medical Assisting program Fall, Spring and Summer semesters.

Diploma Awarded

A Diploma in Medical Assisting is awarded by the college upon completion of the diploma requirements. Graduates of this CAAHEP Accredited program may apply to take the certification examination administered by the Certifying Board of the American Association of Medical Assistants. Credits from this program can be applied toward requirements for the Associate of Applied Science Degree in Medical Assisting.

Note

ACA 118 College Study Skills is highly recommended before or with entrance in the Medical Assisting program.

BIO 090 is strongly recommended for students who have not taken a biology course within the past five (5) years.

Progression in this program is dependent on satisfying course prerequisites, corequisites, and maintaining a grade of C or better for all courses in the curriculum.

Students must have current CPR Certification prior to the externship (MED 260).

In addition to tuition, lab fees, and textbooks, this program has additional costs that include uniforms, lab coats, personal protective equipment, physical examination, application fees for sitting for the Certification Exam, and a CPCC Medical Assisting pin.

For More Information

The Medical Assisting Program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays from 8 a.m. - 5 p.m. Program counselors can be reached by calling 704-330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts (if applicable).
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with a C or better.
- Students must have proficiency to key at an acceptable speed and accurate level using the touch system. A student must demonstrate basic computer competencies through coursework or testing. The Division Director of Computer Office and Information Systems will determine equivalent competencies. The above must be satisfied by the end of the student's first semester.
- Present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 110 Orientation to Medical Assisting	1	0	0		1
MED 112 Orientation to Clinic Setting	0	0	3		1
MED 118 Medical Law and Ethics	2	0	0		2
MED 121 Medical Terminology I	3	0	0		3
MED 122 Medical Terminology II	3	0	0		3
MED 130 Administrative Office Procedures I	1	2	0		2
MED 131 Administrative Office Procedures II	1	2	0		2
MED 134 Medical Transcription	2	2	0		3
MED 138 Infection/Hazard Control	2	0	0		2
MED 140 Exam Room Procedure I	3	4	0		5
MED 150 Laboratory Procedure I	3	4	0		5
MED 260 Medical Clinical Externship	0	0	15		5
MED 116 Introduction to Anatomy and Physiology	3	2	0		4
MED 114 Professional Interaction in Health Care	1	0	0		1
MED 276 Patient Education	1	2	0		2
MED 262 Clinical Perspectives	1	0	0		1

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
MAT 115 Mathematical Models	2	2	0		3
Total Credit Hours					**48**

Medical Assisting Certificates (C45400)

Specialization Certificates

Medical Assisting With a Specialization in Reception (C45400C-1)

The Medical Assisting Certificate with specialization in Medical Reception is earned in the Medical Assisting program. It prepares health care professionals qualified to perform administrative procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations.

A certificate is awarded upon completion of the requirements.

Progression in this program is dependent on staisfying course prerequisites, and maintaining a grade of C or better for all courses in the curriculum.

Students are admitted to the program Fall, Spring and Summer semesters.

Admissions:

- Complete a CPCC application.
- Submit high school transcripts to student records; submit college transcripts (if applicable).
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with C or better.
- Prerequisite courses for admission are:
  - — CIS 110 or 111 (Computer basics)
  - — OST 131 (Keyboarding)
  - — MED 121 (Medical Terminology)
- Students must have proficiency to key at an acceptable speed and accurate level using the touch system and demonstrate basic computer competencies either through course work or testing. The Division Director of Computer Office and Information Systems will determine equivalent competencies.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 114 Professional Interactions	1	0	0	0	1
MED 116 Introduction to Anatomy and Physiology	3	2	0	0	4
MED 118 Medical Law and Ethics	2	0	0	0	2
MED 130 Administrative Office					

Procedures I	1	2	0	0	2
MED 131 Administrative Office Procedures II	1	2	0	0	2
MED 134 Medical Transcription	2	2	0	0	3
MED 138 Infection and Hazard Control	2	0	0	0	2
Total Credit Hours					**16**

Medical Assisting With a Specialization in Medical Transcription (C45400C-2)

The Medical Assisting Certificate with specialization in Medical Transcription is earned in the Medical Assisting program. It prepares health care professionals qualified to perform as a medical transcriptist.

Course work includes instruction in medical terminology, anatomy and physiology, medical transcription, computer operations, medical record maintenance.

A certificate is awarded upon completion of the requirements.

Progression in this program is dependent on staisfying course prerequisites, and maintaining a grade of C or better for all courses in the curriculum.

Students are admitted to the program Fall, Spring and Summer semesters.

Admissions:

- Complete a CPCC application.
- Submit high school transcripts to student records; submit college transcripts (if applicable).
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with C or better.
- Prerequisite courses for admission are:
  - — CIS 110 or 111 (Computer basics)
  - — OST 131 (Keyboarding)
- Students must have proficiency to key at an acceptable speed and accurate level using the touch system and demonstrate basic computer competencies either through course work or testing. The Division Director of Computer Office and Information Systems will determine equivalent competencies.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 114 Professional Interactions	1	0	0	0	1
MED 116 Introduction to Anatomy and Physiology	3	2	0	0	4
MED 118 Medical Law and Ethics	2	0	0	0	2
MED 121 Medical Terminology I	3	0	0	0	3
MED 122 Medical Terminology II	3	0	0	0	3
MED 130 Administrative Office Procedures I	1	2	0	0	2
MED 134 Medical Transcription	2	2	0	0	3
Total Credit Hours					**18**

Medical Laboratory Technology (A45420)

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease.

Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance, and reporting/recording and interpreting findings involving tissues, blood, and body fluids.

Graduates may be eligible to take examinations given by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists or the National Certifying Agency. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

Degree Awarded

The Associate in Applied Science Degree - Medical Laboratory Technology is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, fluid-resistant lab coat, safety glasses/goggles, face shield, a physical examination including immunizations such as tetanus toxoid, Hepatitis B vaccination, TB test, blood tests (i.e. VDRL, Rubella titer, Rubeola titer, etc.) and drug screening.

The student must provide a certificate of health and accident insurance.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

The Medical Laboratory Technology program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with a C or better.
- Complete at least high school level chemistry course with a C or better within the last 10 years.
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MLT 110 Introduction to MLT	2	3	0		3
MLT 111 Urinalysis and Body Fluids	1	3	0		2
MLT 120 Hematology/Hemostasis I	3	3	0		4
MLT 220 Hematology/Hemostasis II	2	3	0		3
MLT 125 Immunohematology I	4	3	0		5
MLT 130 Clinical Chemistry I	3	3	0		4
MLT 230 Clinical Chemistry II	2	3	0		3
MLT 140 Introduction to Microbiology	2	3	0		3
MLT 240 Special Clinical Microbiology	2	3	0		3
MLT 216 Professional Issues	0	2	0		1
MLT 251 MLT Practicum I	0	0	3		1

MLT 267 MLT Practicum II	0	0	24		8
MLT 277 MLT Practicum III	0	0	24		8
BIO 163 Basic Anatomy and Physiology	4	2	0		5
CHM 130 General, Organic, and Biochemistry	3	0	0		3
CHM 130A General, Organic, and Biochemistry Lab	0	2	0		1

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Reporting	3	0	0		3
COM 110 Introduction to Communications	3	0	0		3
MAT 115 Mathematical Models OR	2	2	0		3
MAT 140 Survey of Mathematics OR	3	0	0		3
MAT 161 College Algebra	3	0	0		3
PSY 150 General Psychology	3	0	0		3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0	0	3
Total Credit Hours					**75**

NOTE: By the end of the first year of acceptance into the Medical Laboratory Technology Program the student must demonstrate basic computer competencies through other course-work or testing. The Division Head of Computer and Office Information Systems will determine equivalent competency.

Medical Office Administration (A25310)

This curriculum prepares individuals for employment in medical and other health-care related offices.

Course work will include medical terminology; information systems; office management; medical coding; billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments.

Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations.

Degree Awarded

The Associate in Applied Science Degree - Medical Office Administration is awarded upon completion of this program.

For More Information

The Medical Office Administration Program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6550, the Program Advisor at 704-330-6898 or the Division Office at 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine the admission to English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 134 Text Entry and Formatting	2	2			3
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 286 Professional Development	3	0			3
OST 289 Office Systems Management	2	2			3
CIS 110 Intro to Computers OR	**2**	**2**			**3**
CIS 111 Basic PC Literacy	**1**	**2**			**2**
MED 121 Medical Terminology I	**3**	**0**			**3**
OST 148 Medical Coding, Billing, and Insurance	3	0			3
OST 149 Medical Legal Issues	2	0			3
OST 241 Medical Office Transcription 1	1	2			2
OST 243 Medical Office Simulation	2	2			3
MED 122 Medical Terminology II	3	0			3
ACC 110 Ten-Key Calculators	**0**	**2**			**1**
OST 236 Advanced Word Processing	2	2			3
OST 137 Office Software Applications	1	2			2
BIO 161 Introduction to Human Biology	**3**	**0**			**3**
OST 184 Records Management	**1**	**2**			**2**
OST 131 Keyboarding	**1**	**2**			**2**
Accounting ***(Students must select one):***					
ACC 115 College Accounting	3	2			4
ACC 120 Principles of Accounting 1	3	2			4
Other Major Electives (Students must select 8 credits):					
COE 112 Co-op Work Experience 1	0			20	2
COE 122 Co-op Work Experience II	0			20	2
CIS 120 Spreadsheets	2	2			3
CIS 112 Windows	1	2			2
CIS 172 Introduction to the Internet	2	3			3
OST 233 Office Publications Design	2	2			3
CIS 154 Database Utilization	1	2			2
OST 220 Notetaking	3	0			3
OST 196 Seminar in Office Systems Technology	0-1	0-3			1
OST 198 Seminar in Office Systems Technology	1-3	0-6			3
OST 191 Selected Topics in Office Systems Technology	0-1	0-3			1
OST 193 Selected Topics in Office Systems Technology	1-3	0-6			3

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communications	3	0			3
MAT 115 Mathematical Models	3	0			3
ECO 151 Survey of Economics	3	0			3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0			3
Total Credit Hours					**76**

Nursing, Associate Degree (A45120)

Christa A. Overcash Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout

provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

Degree Awarded

The Associate in Applied Science Degree - Nursing is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, stethoscope, a physical examination including drug screening test, immunizations such as tetanus toxoid, Hepatitis B vaccinations, TB test, blood test (i.e., VDRL, Rubella titer, etc.), CPR certification and annual recertification, fees for application for licensure for NC State Board of Nursing & National Council Licensure Examination, and a fee for the nursing pin. The student must provide a certificate of health and accident insurance.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

Christa A. Overcash Associate Degree Nursing program is in the Nursing and Human Services Division. For more information, call the Nursing and Human Services Division at 704-330-6496, weekdays from 8 a.m.-5 p.m. The Program Chair can be reached at 704-330-6379. Check our website at www.cpcc.cc.nc.us/nursing_human_services/.

Admissions

- Complete a CPCC application.
- Pick up copy of ADN Admissions Info
- Submit high school transcripts and any college transcripts.
- Take required placement tests.
- Attend Health Sciences / Advancement Studies orientation.
- Meet with counselors.
- Complete at least high school level chemistry with a C or better within the last 5 years.
- Chemistry must be completed with a grade of C or better prior to entering the program. (Chemistry and BIO 168, BIO 169 and BIO 275 must have been completed within the last 5 years.)
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
NUR 115 Fundamentals of Nursing	2	3	6		5
NUR 133 Nursing Assessment	2	3			3
NUR 125 Maternal-Child Nursing	5	3	6		8
NUR 185 Mental Health Nursing	3	0	6		5
NUR 135 Adult Nursing I	5	3	9		9
NUR 235 Adult Nursing II	4	3	15		10
NUR 255 Professional Issues	3	0	0		3
BIO 168 Anatomy and Physiology I	3	3	0		4
BIO 169 Anatomy and Physiology II	3	3	0		4
BIO 275 Microbiology	3	3	0		4
Elective	2	0	0		2
(No PED course accepted for elective.)					

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
ENG 113 Literature Based Research	3	0	0		3
COM 231 Public Speaking OR					
COM 233 Persuasive Speaking	3	0	0		3
MAT 161 College Algebra	3	0	0		3
PSY 150 General Psychology	3	0	0		3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0	0	3
Total Credit Hours					**75**

NOTE: By the end of the first semester of acceptance into Christa A. Overcash Associate Degree Nursing Program the student must demonstrate basic computer competencies through coursework or testing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

***Additional Info Regarding ADN Program**

Christa A. Overcash Associate Degree Nursing Program offers two additional entry routes for eligible applicants through *Transfer* and the *Licensed Practical Nurse* to Registered Nurse Transition Program.

Licensed Practical Nurse to Registered Nurse Transition Program

The Licensed Practical Nurse (LPN) may apply for advanced placement. This is an opportunity for the LPN applicant to continue upward mobility in his/her nursing career. The LPN to RN Transition Program is a year in length — Spring to Spring. To request an information packet contact the Nursing and Human Services Division at 704-330-6496.

Transfer Policy

This policy applies to the student who is seeking transfer into Christa A. Overcash Associate Degree Nursing Program. This policy gives consideration to the student who has been enrolled in a nursing program elsewhere and is seeking to continue and to complete the Associate Degree Nursing Program at Central Piedmont Community College. **Transfer consideration is based on space availability.** For more information call the Program Chair at 704-330-6379.

Office Systems Technology (A25360)

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

Degree Awarded

The Associate in Applied Science Degree - Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Office Systems Technology program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6550, Program Advisors at 704-330-6792 / 6898 or the Division Office 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost.

Admissions

- Complete a CPCC application.
- Submit high school transcript and any college transcripts.
- Take required placement tests to determine placement in English (ENG) and mathematics (MAT) courses.
- Meet with counselor.
- Check the Course Descriptions section to determine course prerequisites or corequisites.
- Take the courses in bold print first if at all possible.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 286 Professional Development	3	0			3
OST 134 Text Entry and Formatting	2	2			3
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 289 Office Systems Management	2	2			3
OST 236 Advanced Word Processing	2	2			3
OST 137 Office Software Applications	1	2			2
OST 135 Advanced Text Entry & Formatting	3	2			4
CIS 112 Windows	**1**	**2**			**2**
CIS 120 Spreadsheets	2	2			3
CIS 154 Database Utilization	1	2			2
OST 233 Office Publications Design	2	2			3
OST 223 Machine Transcription I	1	2			2
OST 220 Notetaking	**3**	**0**			**3**
OST 184 Records Management	**1**	**2**			**2**
OST 131 Keyboarding	**1**	**2**			**2**
CIS 110 Intro to Computers	**2**	**2**			**3**
OR					
CIS 111 Basic PC Literacy	**1**	**2**			**2**
ACC 110 Ten-Key Calculators	**0**	**2**			**1**
Accounting. ***Students must select one:***					
ACC 115 College Accounting	3	2			4
ACC 120 Principles of Accounting I	3	2			4
Business. ***Students must select one:***					
BUS 110 Introduction to Business	3	0			3
BUS 115 Business Law I	3	0			3
BUS 135 Principles of Supervision	3	0			3
BUS 137 Principles of Management	3	0			3
BUS 255 Org. Behavior in Business	3	0			3
BUS 260 Business Communications	3	0			3
Other Major Electives ***Students must select two:***					
COE 112 Co-op Work Experience I	0	0		20	2
COE 122 Co-op Work Experience II	0	0		20	2
CIS 103 Data Entry Operations	3	2			4
CIS 172 Introduction to the Internet	2	3			3
OST 132 Keyboard Skill Building	1	2			2
OST 133 Advanced Keyboard Skill Building	1	2			2
OST 196 Seminar in Office Systems Technology	0-1	0-3			1
OST 198 Seminar in Office Systems Technology	1-3	0-6			3
OST 191 Selected Topics in Office Systems Technology	0-1	0-3			1
OST 193 Selected Topics in Office Systems Technology	1-3	0-6			3
General Education Core Requirements					
ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communications	3	0			3
MAT 115 Mathematical Models	3	0			3
ECO 151 Survey of Economics	3	0			3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	**3**	**0**			**3**
Total Credit Hours					**72**

Office Systems Technology (A2536A) Legal Concentration

Legal is a concentration under the curriculum title of Office Systems Technology. This curriculum prepares individuals for entry-level positions in legal or government-related offices and provides professional development for the currently employed.

Course work includes terminology, operational procedures, preparation and transcription of documents, computer software, and court-related functions as they relate to the legal office profession. Emphasis is placed on the development of accuracy, organizational skills, discretion, and professionalism.

Graduates should qualify for employment in corporate legal departments; private practices, including real estate and estate planning; and city, state and federal government offices. With appropriate work experience, graduates may apply for certification as a Professional Legal Secretary (PLS).

Degree Awarded

The Associate in Applied Science Degree - Office Systems Technology, Legal Concentration is awarded by the College upon completion of this program.

Note

Students interested in the Office Systems Technology, Legal Concentration should consult with a faculty advisor or program counselor regarding selection of elective courses.

For More Information

The Office Systems Technology, Legal Concentration program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6550, Program Advisors at 704-330-6792, or 704-330-6898, or the Division Office at 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine the admission to English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 286 Professional Development	3	0			3
OST 134 Text Entry and Formatting	2	2			3
OST 136 Word Processing	1	2			2

OST 164 Text Editing Applications	3	0		3
OST 220 Notetaking	3	0		3
OST 289 Office Systems Management	2	2		3
CIS 111 Basic PC Literacy	**1**	**2**		**2**
OR				
CIS 110 Intor to Computers	2	2		3
OST 155 Legal Terminology	**3**	**0**		**3**
OST 156 Legal Office Procedures	2	2		3
OST 251 Legal Document Formatting	2	2		3
OST 252 Legal Transcription I	2	2		3
ACC 110 Ten-Key Calculators	**0**	**2**		**1**
OST 236 Advanced Word Processing	2	2		3
OST 137 Office Software Applications	1	2		2
OST 184 Records Management	**1**	**2**		**2**
OST 131 Keyboarding	**1**	**2**		**2**
BUS 115 Business Law	3	0		3
Accounting. ***Students must select one:***				
ACC 115 College Accounting	3	2		4
ACC 120 Principles of Accounting I	3	2		4
Other Major Electives. Students must select 7 credits.				
COE 112 Co-op Work Experience I	0	0	20	2
COE 122 Co-op Work Experience II	0	0	20	2
CIS 120 Spreadsheets	2	2		3
CIS 112 Windows	1	2		2
CIS 154 Database Utilization	1	2		2
CIS 172 Introduction to the Internet	2	3		3
OST 196 Seminar in Office Systems Technology	0-1	0-3		1
OST 198 Seminar in Office Systems Technology	1-3	0-6		3
OST 191 Selected Topics in Office Systems Technology	0-1	0-3		1
OST 193 Selected Topics in Office Systems Technology	1-3	0-6		3
OST 233 Office Publications Design	2	2		3
LEX 120 Legal Research/Writing I	2	2		3
LEX 140 Civil Litigation I	3	0		3
LEX 160 Criminal Law and Procedures	2	0		2
LEX 210 Real Property I	2	0		2
LEX 240 Family Law	2	0		2
General Education Core Requirements				
ENG 111 Expository Writing	**3**	**0**		**3**
ENG 114 Professional Research and Reporting	3	0		3
COM 110 Introduction to Communications	3	0		3
MAT 115 Mathematical Models	3	0		3
ECO 151 Survey of Economics	3	0		3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	**3**	**0**		**3**
Total Credit Hours				**73**

Office Systems Technology Diploma (D25360-D1)

General Clerical Skills

The purpose of the General Clerical Skills curriculum is to prepare the individual to enter clerical office occupations. This purpose will be fulfilled through skill development in the areas of word processing, records management, and ten-key calculators. Through these skills and through development of personal competencies and qualities, an individual will be able to function effectively in office-related activities at the entry level. The courses in this diploma can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in general clerical positions in business, government, and industry.

Diploma Awarded

The Diploma in General Clerical Skills– Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The General Clerical Skills Diploma is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, a Program Advisor 704-330-6792, or 6898, or Division Office 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost.

Admissions

- A High School Diploma or equivalent is required
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 286 Professional Development	3	0			3
CIS 172 Introduction to Internet	3	2			3
OST 131 Keyboarding	1	2			2
OST 184 Records Management	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computers	2	2			3
ACC 110 Ten-Key Calculator	0	2			1
CIS 112 Windows	1	2			2
OST 220 Notetaking	3	0			3
OST 164 Text Editing Applications	3	0			3
OST 134 Text Entry and Formatting	2	2			3
OST 136 Word Processing	1	2			2
OST 137 Office Software Applications	1	2			2
COE 112 Co-Operative Work Experience I	0			20	2
General Education Core Requirements					
ENG 111 Expository Writing	3	0			3
ECO 151 Survey of Economics	3	0			3
Total Credit Hours					**37**

Office Systems Technology Diploma (D25360-D2)

Word Processing Operator (D25360-D2)

The Word Processing curriculum prepared individuals to create, edit, and proof a variety of documents accurately. Upon completion of this program, students will possess knowledge of word processing (Word and WordPerfect), database, spreadsheet, and electronic mail software. The courses in this diploma can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in word processing positions in business, government, and industry.

Diploma Awarded

The Diploma in Word Processing Operator – Office Systems

Technology is awarded by the College upon completion of this program.

For More Information

The Word Processing Operator Diploma is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, a Program Advisor 704-330-6792, or 6898, or Division Office 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 286 Professional Development	3	0			3
OST 131 Keyboarding	1	2			2
OST 184 Records Management	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computers					
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 134 Text Entry and Formatting	2	2			3
OST 236 Advanced Word/Info. Processing	2	2			3
OST 137 Office Software Applications	1	2			2
CIS 112 Windows	1	2			2
CIS 154 Database Utilization	1	2			2
OST 233 Publication and Design	2	2			3
CIS 172 Intro to the Internet	2	3			3
Select one Course					
COE 112 Co-Operative Work Experience I	0			20	2
BUS 110 Introduction to Business	3	0			3
General Education Core Requirements					
ENG 111 Expository Writing	3	0			3
ECO 151 Survey of Economics	3	0			3
Total Credit Hours					**43**

Office Systems Technology Certificates (C25360)

Specialization Certificate

Office Systems Technology Receptionist Skills (C25360-C1)

The Receptionist curriculum prepares individuals to receive and route telephone calls, greet visitors, and handle filing, mailing, copying, and faxing. In addition, students would possess basic keyboarding and computer skills. The courses in this certificate can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in receptionist positions in business, government, and industry.

Certificate Awarded

The Certificate in Receptionist Skills – Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Receptionist Skills Certificate is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, the Program Advisors 704-330-6792 or, 6898, or Division Office 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 286 Professional Development	3	0			3
OST 131 Keyboarding	1	2			2
OST 184 Records Management	1	2			2
OST 136 Word Processing	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computers	2	2			3
OST 164 Text Editing Applications	3	0			3
OST 137 Office Software Applications	1	2			2
Optional Elective					
COE 112 Co-op Work Experience	1			20	2
Total Credit Hours					**16**

Office Systems Technology Software Use (C25360-C2)

The Certificate in Software Use provides students with an introductory knowledge of software usage to enable them to function effectively in an office environment using the touch keying system. Students will have knowledge of word processing, database, spreadsheets, and electronic mail applications. The courses in this certificate can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in entry-level positions in business, government, and industry.

Certificate Awarded

The Certificate in Software Use – Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Software Use Certificate is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, the Program Advisor 704-330-6898 or, 6792, or Division Office 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computers	2	2			3

OST 136 Word Processing	1	2		2
OST 137 Office Software Applications	1	2		2
OST 236 Advanced Word/Info. Processing	2	2		3
CIS 154 Database Utilization	1	2		2
CIS 112 Windows	1	2		2
CIS 120 Spreadsheets I	2	2		3
Total Credit Hours				**18**

Office Systems Technology Data Entry (C25360-C3)

The Data Entry Curriculum is designed to prepare the individual for employment in the field of data entry. Students will study data descriptions and formats, interpret source documents, develop data entry skills necessary for the manipulation of data, and become experienced using data entry devices.

Graduates should qualify for employment as a data entry operator.

Certificate Awarded

The Certificate in Data Entry - Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Data Entry Certificate is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, the Faculty Advisor 704-330-6243, or Division Office 704-330-6408.

For more information, check our website at www.cpcc.cc.nc.us/northeast_division/ost

Admissions

A High School Diploma or equivalent is desired.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computers	2	2			3
CIS 112 Windows	1	2			2
CIS 103 Data Entry Operations	3	2			4
OST 132 Keyboard Skill Building	1	2			2
OST 133 Adv. Keyboard Skill Building	1	2			2
Total Credit Hours					**14**

Optional: For information about COE 112 Cooperative Work Experience I, check with the Data Entry Faculty Advisor.

Medical Office Administration

(See page 145)

Paralegal Technology (A25380)

ABA Approved

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal /legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

Degree Awarded

An Associate in Applied Science Degree - Paralegal Technology is awarded by the College upon completion of this program.

For More Information

The Paralegal Technology Program is in the Business and Accounting Division. For more information, call the Program Chair at 704-330-6873 or the division office at 704-330-6595/6646. A Program Counselor can be reached by calling 704-330-6229.

Admission

- A High School Diploma or equivalent is required.
- Placement test scores will determine placement in English and mathematics courses.
- A minimum placement test score in reading is a prerequisite to all LEX courses.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Students should make every effort to complete LEX 110 Introduction to Paralegal Study during their first semester.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2			4
OR					
ACC 115 College Accounting	3	2			4
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computer (Recommended)					
LEX 110 Introduction to Paralegal Study	2				2
LEX 120 Legal Research/Writing I	2	2			3
LEX 121 Legal Research/Writing II	2	2			3
LEX 130 Civil Injuries	3				3
LEX 140 Civil Litigation I	3				3
LEX 141 Civil Litigation II	2	2			3
LEX 150 Commercial Law	2	2			3
LEX 210 Real Property I	3				3
LEX 240 Family Law	3				3
LEX 250 Wills, Estates and Trusts	2	2			3
LEX 280 Ethics and Professionalism	2				2
OST 131 Keyboarding	1	2			2
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3				3
Technical Electives					
Students must choose six hours from the following list::					
COE 111 Co-op Work Experience I	0			10	1
OR					
COE 112 Co-op Work Experience I	0			20	2
COE 121 Co-op Work Experience II	0			10	1
OR					
COE 122 Co-op Work Experience II	0			20	2
LEX 160 Criminal Law and Procedure	2	2			3
LEX 170 Administrative Law	2				2
LEX 192 Selected Topics in Paralegal	2				2

LEX 211 Real Property II	1	4		3
LEX 220 Corporate Law	2			2
LEX 260 Bankruptcy and Collections	2			2
LEX 285 Workers' Compensation Law	2			2

General Education Core Requirements

COM 231 Public Speaking OR COM 233 Persuasive Speaking (recommended)	3			3
ENG 111 Expository Writing	3			3
ENG 112 Argument-Based Research	3			3
ENG 114 Professional Research and Reporting	3			3
MAT 115 Mathematical Models OR MAT 140 Survey of Mathematics OR MAT 161 College Algebra	3			3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3			3
Students must choose a minimum of 3 credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3			3
Total Credit Hours				**71**

Paralegal Technology Diploma (D25380)

ABA Approved

Overview

This program is open to students who hold a Bachelor's Degree from an accredited college or university.

Diploma Awarded

A post-baccalaureate Paralegal Technology Diploma is awarded by the College upon completion of this program.

Admission

- An official college transcript is required.
- A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
- A counseling/orientation appointment follows placement testing.
- Students should make every effort to complete LEX 110 Introduction to Paralegal Study during their first semester.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

For More Information

Call the Program Chair at 704-330-6873.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
LEX 110 Introduction to Paralegal Study	2				2
LEX 120 Legal Research/Writing I	2	2			3
LEX 121 Legal Research/Writing II	2	2			3
LEX 140 Civil Litigation I	3				3
LEX 141 Civil Litigation II	2	2			3
LEX 280 Ethics and Professionalism	2				2
OST 131 Keyboarding	1	2			2
OST 136 Word Processing	1	2			2
CIS 110 Intro to Computers (Recommended) OR CIS 111 Basic PC Literacy	1	2			2
Electives					
(Choose 11 SHC from the following list:)					
COE 111 Co-op Work Experience I OR	0			10	1
COE 112 Co-op Work Experience I	0			20	2
COE 121 Co-op Work Experience II OR	0			10	1
COE 122 Co-op Work Experience II	0			20	2
LEX 130 Civil Injuries	3				3
LEX 150 Commercial Law	2	2			3
LEX 160 Criminal Law and Procedure	2	2			3
LEX 170 Administrative Law	2				2
LEX 192 Selected Topics in Paralegal	2				2
LEX 210 Real Property I	3				3
LEX 211 Real Property II	1	4			3
LEX 220 Corporate Law	2				2
LEX 240 Family Law	3				3
LEX 250 Wills, Estates and Trusts	2	2			3
LEX 260 Bankruptcy and Collections	2				2
LEX 285 Workers' Compensation Law	2				2

General Education Core Requirements

COM 231 Public Speaking OR COM 233 Persuasive Speaking (recommended)	3			3
SOC (Students must choose a minimum of three (3) credit hours from the list of approved Social Science courses listed at the end of this section of the catalog.)				3
Total Credit Hours				**39**

Physical Fitness Technology (A45610)

Curriculum Description

The Physical Fitness Technology program is designed to provide students with the knowledge and skills necessary for employment in the fitness and exercise industry.

Students will be trained in exercise science and be able to administer basic fitness tests and health risk appraisals, teach specific exercise and fitness classes and provide instruction in the proper use of exercise equipment and facilities.

Graduates should qualify for employment opportunities in commercial fitness clubs, YMCA's/YWCA's, wellness programs in business and industry, parks and recreation departments and other organizations implementing exercise and fitness programs.

Degree Awarded

The Associate in Applied Science Degree - Physical Fitness Technology is awarded by the College upon completion of this program.

For More Information

The Physical Fitness Technology program is in the Health, Physical Education and Recreation Department. For more information call the Program Chair or the division office at 704-330-6937/6458.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics and reading.
- Complete a CPCC Admission application.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PSF 110 Exercise Science	4	0			4
PSF 111 Fitness & Exercise Testing 1	3	2			4
PSF 114 Phys. Fit. Theory & Instr	4	0			4
PSF 116 Pvnt & Care Exer Injuries	1	2			2
PSF 120 Group Exer Instruction	2	2			3
PSF 210 Personal Training	2	2			3
PSF 212 Exercise Programming	2	2			3
PSF 218 Lifestyle Chng & Wellness	3	2			4
BIO 168 Anatomy & Physiology I	3	3			4
BIO 169 Anatomy & Physiology II	3	3			4
BIO 155 Nutrition	3	0			3
***Technical Elective**	2	0			2
Student must choose a minimum of three (3) credits from the list of approved courses at the end of this section	3	3			3

General Education Core Requirements

ENG 111 Expository Writing	3	0			3
ENG 114 Prof Research & Reporting	3	0			3
COM 231 Public Speaking	3	0			3
MAT 115 Mathematical Models	2	2			3
PSY 150 General Psychology	3	0			3
HEA 112 First Aid and CPR	1	2			2
CIS 110 Intro to Computer	2	2			3
COE 111 Co-Op Work Experience I	0	0		10	1
COE 121 Co-Op Work Experience II	0	0		10	1
HUM (Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.)	3	0			3
Total Credit Hours					**68**

Three credit hours may be taken from these prefixes:BUS, and PED.

Physical Fitness Technology Certificates (C45610)

Specialization Certificates

Exercise Fundamentals (C45610-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PSF 110 Exercise Science	4	0			4
BIO 168 Anatomy & Physiology I	3	3			4
PSF 218 Lifestyle Change & Wellness	3	2			4
PSF 116 Prevention & Care of Exercise Injuries	3	2			2
HEA 112 First Aid and CPR	1	2			2
Total Credit Hours					**16**

Advanced Certificate in Exercise Instruction and Assessment (C45610-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PSF 111 Fitness & Exercise Testing I	3	2			4
BIO 169 Anatomy & Physiology II	3	3			4
PSF 210 Personal Training	2	2			3
(PSF 111 is a prerequisite but can be a co-requisite if cleared by Program Chair)					
PSF 120 Group Exercise Instruction	2	2			3
PED (Student may select (2) two credits from the required list from the program chair)	0	3			2
Total Credit Hours					**16**

NOTE: These certificates are tier-oriented; Exercise Fundamentals must be obtained before Exercise Instruction and Assessment is obtained. They both can lead to the Associate degree in Physical Fitness Technology.

Physical Therapist Assistant (A45640)

Curriculum Description

The Physical Therapist Assistant curriculum prepares graduates to work in direct patient care settings under the supervision of physical therapists. Assistants work to improve or restore function by alleviation or prevention of physical impairment and perform other essential activities in a physical therapy department.

Course work includes normal human anatomy and physiology, the consequences of disease or injury, and physical therapy treatment of a variety of patient conditions affecting humans throughout the lifespan.

Graduates may be eligible to take the licensure examination administered by the N.C. Board of Physical Therapy Examiners. Employment is available in general hospitals, rehabilitation centers, extended care facilities, specialty hospitals, home health agencies, private clinics, and public school systems.

Degree Awarded

The Associate in Applied Science Degree - Physical Therapist Assistant is awarded by the College upon completion of this program.

Program Accreditation

The Physical Therapist Assistant program at CPCC is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Note

In addition to tuition and textbooks, costs of the program include uniforms, travel to clinical sites, liability and accident insurance, a fee for CPR certification and/or recertification, a fee for licensure application, and the cost of a physical examination including immunizations and blood tests. Current CPR certification is required prior to all clinical courses.

For More Information

The Physical Therapist Assistant Program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6500 or 6468.

Admissions

- A High School Diploma or equivalent is required.
- Complete a CPCC admission application.
- Take required placement tests.
- Submit all official high school transcripts and any college transcripts.
- Attend Health Sciences Counselor orientation session.
- Complete any required Advancement Studies courses with a grade of C or better.
- Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
- Continued progression in the program requires a grade of C or better in every course.
- BIO 168 and BIO 169 must have been completed within the last 5 years.
- A physical examination documenting the applicant's ability to complete all program requirements is also required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PTA 110 Introduction to Physical Therapy	2	3	0		3
PTA 125 Gross and Functional Anatomy	3	6	0		5
PTA 135 Pathology	4	0	0		4
PTA 145 Therapeutic Procedures	2	6	0		4
PTA 165 PTA Clinical 1	0	0	9		3
PTA 185 PTA Clinical II	0	0	9		3
PTA 212 Health Care/Resources	2	0	0		2
PTA 215 Therapeutic Exercise	2	3	0		3
PTA 222 Professional Interactions	2	0	0		2
PTA 225 Introduction to Rehabilitation	3	3	0		4
PTA 235 Neurological Rehabilitation	3	6	0		5
PTA 245 PTA Clinical III	0	0	12		4
PTA 255 PTA Clinical IV	0	0	12		4
BIO 168 Anatomy and Physiology I	3	3	0		4
BIO 169 Anatomy and Physiology II	3	3	0		4
General Education Core Requirements					
ENG 111 Expository Writing	3	0	0		3
ENG 113 Literature-Based Research OR ENG 114 Professional Research and Reporting	3	0	0		3
COM 110 Introduction to Communication OR COM 231 Public Speaking OR COM 233 Persuasive Speaking	3	0	0		3
PSY 150 General Psychology	3	0	0		3
MAT 140 Survey of Mathematics OR MAT 161 College Algebra	3	0	0		3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0		3
Total Credit Hours					**72**

NOTE: By the end of the first semester of acceptance into the Physical Therapist Assistant Program, the student must demonstrate basic computer competencies through other coursework or testing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

Respiratory Therapy (A45720)

Curriculum Description

The Respiratory Therapy curriculum prepares individuals to function as respiratory therapists. In these roles, individuals perform diagnostic testing, treatments, and management of patients with heart and lung diseases.

Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration, and treatment of patients of all ages in a variety of settings.

Graduates of accredited programs may be eligible to take entry level examinations from the National Board for Respiratory Care. Therapy graduates may also take Advanced Practitioner. Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and home care.

Degree Awarded

The Associate in Applied Science Degree - Respiratory Therapy is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, stethoscope, scissors, hemostats, watch with a second hand, a physical examination including immunizations such as tetanus toxoid, Hepatitis B, TB test, blood test e.g., Rubella titer, fees for Basic Cardiac Life Support course, Basic Cardiac Life Support Instructor course, Advanced Cardiac Life Support course, and fees for Self Assessment Examinations (4).

The student must provide a certificate of health or accident insurance.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

The Respiratory Therapy program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays, from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required advancement studies classes with a C or better.
- Complete at least high school level chemistry with a C or better within the last 5 years.
- BIO 163 must have been completed within the last 5 years.
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BIO 163 Basic Anatomy and Physiology	4	2	0		5
MED 120 Survey of Medical Terminology	2	0	0		2
RCP 110 Introduction to Respiratory Care	3	3	0		4
RCP 123 Special Practice Lab	0	3	0		1
RCP 111 Therapeutics and Diagnostics	4	3	0		5
RCP 113 Pharmacology	2	0	0		2
RCP 114 Cardiopulmonary Anatomy & Physiology	3	0	0		3
RCP 115 Cardiopulmonary Pathophysiology	2	0	0		2
RCP 133 RCP Clinical Practice I	0	0	9		3
RCP 112 Patient Management	3	3	0		4
RCP 143 Clinical Practice II	0	0	9		3
RCP 210 Critical Care Concepts	3	3	0		4
RCP 214 Neonatal / Ped Concepts	1	3	0		2
RCP 235 Clinical Practice IV	0	0	15		5
RCP 211 Advanced Monitoring and Procedures	3	3	0		4
RCP 215 Career Preparation	0	3	0		1
RCP 247 Clinical Practice V	0	0	21		7

General Education Core Requirements

ENG 111 Expository Writing	3	0	0		3
MAT 115 Mathematical Models OR MAT 140 Survey of Mathematics OR MAT 161 College Algebra	3	0	0		3
ENG 113 Literature-Based Research OR ENG 114 Professional Research and Reporting	3	0	0		3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0		3
COM 110 Introduction To Communication OR COM 231 Public Speaking OR COM 233 Persuasive Speaking	3	0	0		3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0		3
Total Credit Hours					**75**

NOTE: By the end of the first semester of acceptance into the Respiratory Therapy Program, the student must demonstrate basic computer competencies through other coursework or testing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

Substance Abuse

(See Human Services Technology)

Surveying Technology (A40380)

The Surveying Technology curriculum provides training for technicians in the many areas of surveying. Surveyors are involved in land surveying, route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems, and other areas of property description and measurements.

Course work includes the communication and computational skills required for boundary, construction, route, and control surveying, photogrammetry, topography, drainage, surveying law, and subdivision design, with emphasis upon applications of electronic data collection and related software including CAD.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Registered Land Surveyor in North Carolina.

Degree Awarded

The Associate in Applied Science Degree - Surveying Technology will be awarded by the College upon completion of this program.

For More Information

The Surveying Technology program is in the Engineering Technologies Division. For more information, call the Program Counselor at 704-330-6463 or 704-330-6881 or the Program Chair at 704-330-6578, weekdays from 8:00 a.m. - 5:00 p.m.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English and Mathematics. Advancement Studies in English and Mathematics courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first if at all possible.
- Students should see a Faculty Advisor before registration.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Note

Students who do not take program-related courses for a one year period must reenter the program under the Catalog in effect at the time of reentry.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 111 Basic PC Literacy	**1**	**2**	**0**	**0**	**2**
CIV 110 Statics/Strength of Materials	2	6	0	0	4
CIV 125 Civil/Survey CAD	1	6	0	0	3
CIV 211 Hydraulics and Hydrology	2	3	0	0	3
EGR 115 Intro to Technology	**2**	**6**	**0**	**0**	**4**
SRV 110 Surveying I	**2**	**6**	**0**	**0**	**4**
SRV 111 Surveying II	2	6	0	0	4
SRV 210 Surveying III	2	6	0	0	4
SRV 220 Surveying Law	2	2	0	0	3
SRV 230 Subdivision Planning	1	6	0	0	3
SRV240 Topo/Site Surveying	2	6	0	0	4
SRV250 Advanced Surveying	2	6	0	0	4
Technical Electives (to be selected from list below)					**6**
					48

Technical Electives

CIV 212 Environmental Planning	2	3	0	0	3
CIV 215 Highway Technology	1	3	0	0	2

CIV 220 Basic Structural Concepts	1	3	0	0	2
COE 112 Co-op Work Experience I	0	0	0	20	2
CSC 132 Basic Programming	2	3	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 132 Physics-Elec & Magnetism	3	2	0	0	4
SRV 192 Selected Topics in Surveying Technology	1	3	0	0	2
SRV 198 Seminar in Surveying Technology	2	3	0	0	3
SRV 260 Field and Office Practices	1	3	0	0	2

General Education Core Requirements

COM 110 Intro to Communications	3	0	0	0	3
ENG 111 Expository Writing	**3**	**0**	**0**	**0**	**3**
ENG 114 Professional Research and Reporting	3	0	0	0	3
MAT 121 Algebra/Trigonometry I	**2**	**2**	**0**	**0**	**3**
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					25
Total Credit Hours					**73**

Telecommunications and Network Engineering Technology (A40400)

Curriculum Description:

The Telecommunications and Network Engineering Technology curriculum prepares individuals for positions in the telecommunication networking industry. The curriculum develops the knowledge to design, build, install, test, troubleshoot, repair, and modify telecommunication and network systems.

Course work includes basic electricity, solid-state fundamentals, digital concepts, microprocessors, telecommunications, and network systems to ensure students develop skills to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot telecommunication and network systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronic engineering technician, field service technician, maintenance technician, network system technician, network specialist, network systems integrator, and network administrator

Degree Awarded

The Associate in Applied Science Degree - Telecommunications and Network Engineering Technology is awarded by the College upon completion of this program.

For More Information

The Electronics Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program Chair at 704-330-6479, weekdays, 9 a.m.-5 p.m. or the Program Counselor at 704-330-6463 or 704-330-6881.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
- CPCC placement tests are required in English, mathematics. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CET 111 Upgrade/Repair I	2	3	0		3
CIS 111 Basic PC Literacy	2	2	0		2
CIS 246 Operating Systems - UNIX	2	3	0		3
ELC 110 Telecom Circuits/ Devices	3	3	0		4
ELC 116 Telecom Cabling	1	2	0		2
ELN 116 Telecom Digital Logic	3	3	0		4
ELN 237 Local Area Networks	2	2	0		3
ELN 238 Advanced LANs	2	2	0		3
NET 110 Data Communication/ Networking	2	2	0		3
TNE 111 Data/Computer Networks I	2	3	0		3
TNE 121 Data/Computer Networks II	2	2	0		3
TNE 250 Introduction to Telecom Networks	2	3	0		3
TNE 251 Advanced Telecom Networks	2	3	0		3
TNE 261 Internet Development	2	3	0		3
Technical Electives: (5 credit hours to be selected from the following courses)					**47**
CET 211 Computer Upgrade/ Repair II	2	3	0		3
ELN 136 Telecom Digital Systems	2	3	0		3
ELN 293 Selected Topics in Electronics	1	3	0		3
TNE 193 Selected Topics in Telecom	1	3	0		3
TNE 231 Data Comm over WAN	2	3	0		3
TNE 241 LAN/WAN Troubleshooting	2	3	0		3
TNE 242 LAN/WAN Design	2	3	0		3
TNE 293 Selected Topics in Telecom	1	3	0		3
COE 112E Cooperative Work Experience I	0	0		20	2
COE 122E Cooperative Work Experience II	0	0		20	2
General Education Core Requirement					
ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Reporting	3	0	0		3
COM 110 Introductions to Communications	3	0	0		3
MAT 121 Algebra/Trigonometry I	2	2	0		3
MAT 122 Algebra/Trigonometry II	2	2	0		3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end					

of this section of the catalog:	3	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavior and social science courses listed at the end of this section of the catalog:	3	0	0	3
				21
Total Credit Hours				**68**

Telecommunications and Network Engineering Technology Certificate (C40400)

Specialization Certificate

The certificate listed below can be earned in the Telecommunications and Network Engineering Technology (C40400) Program.

More Information

For more information, call the Program Chair at 704-330-5496, or the Information Technology Office at 704-330-6549, weekdays from 8:00 Am - 5:00 PM. Program Counselors can be reached by calling 704-330-6881 or 6463

Admissions

High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced math. Skills and proficiencies should be developed in writing, computer literacy, and science.

CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.

A counseling/orientation appointment follows placement testing.

Telecommunications and Network Engineering Technology Certificate with a Specialization in Technical Support (C2526D-C1)

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 111 Basic PC Literacy	1	2			2
ELC 110 Telecom Circuits/Devices	3	3			4
ELN 116 Telecom Digital Logic	3	3			4
MAT 121 Algebra/Trigonometry 1	2	2			3
Total Credit Hours					**13**

Telecommunications and Network Engineering Technology Certificate with a Specialization in PC Support (C40400-C2)

	Class	Lab	Hours Clinical	Work Exper.	Credits
CET 111 Computer Upgrade/ Repair I	2	3			3
TNE 111 Data/Computer Networks I	2	3			3
CET 211 Computer Upgrade/ Repair II	2	3			3
TNE 121 Data/Computer Networks II	2	3			3
Total Credit Hours					**12**

Telecommunications and Network Engineering Technology Certificate with a Specialization in Computer/Network Administration (C40400-C3)

	Class	Lab	Hours Clinical	Work Exper.	Credits
TNE 111 Data/Computer Networks I	2	3			3
CET 111 Computer Upgrade/ Repair I	2	3			3
ELN 237 Local Area Networks	2	3			3
TNE 121 Data/Computer Networks II	2	3			3
Total Credit Hours					**12**

Telecommunications and Network Engineering Technology Certificate with a Specialization in Advanced PC/Network Support (C40400-C4)

	Class	Lab	Hours Clinical	Work Exper.	Credits
TNE 121 Data/Computer Networks II	2	3			3
ELN 238 Advanced LANs	2	3			3
TNE 250 Intro to Telecom Networks	2	3			3
CET 211 Computer Upgrade/ Repair II	2	3			3
Total Credit Hours					**12**

Telecommunications and Network Engineering Technology Certificate with a Specialization in Novell Network Support (C40400-C5)

	Class	Lab	Hours Clinical	Work Exper.	Credits
CET 111 Computer Upgrade/ Repair I	2	3			3
ELN 237 Local Area Networks	2	3			3
TNE 121 Data/Computer Networks II	2	3			3
CET 211 Computer Upgrade/ Repair II	2	3			3
Total Credit Hours					**12**

Travel and Tourism Technology (A25440)

The Travel and Tourism Technology curriculum is designed to train individuals to become travel consultants capable of planning and arranging a full spectrum of travel components for clients. Students will learn to operate within a global travel information network.

Instruction includes industry terminology, travel and tourism careers, reservation and ticketing procedures, airline computer training, world destinations, cruises, tour arranging and escorting, rail, travel sales and marketing, and practical skills necessary for the day-to-day operation of a retail travel firm.

The graduate of this program will be primarily trained for employment by travel agencies. Students may also be employed by the airlines, the hospitality industry, rental car companies, tour operators, cruise lines, rail companies, and visitors' centers.

Degree Awarded

The Associate in Applied Science Degree - Travel and Tourism Technology is awarded by the College upon completion of this program.

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement

testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 110 Introduction to Travel and Tourism	3	0			3
TAT 112 Domestic Reservations and Ticketing	3	2			4
TAT 114 International Reservations and Ticketing	3	2			4
TAT 116 World Destinations I	3	0			3
TAT 118 World Destinations II	3	0			3
TAT 120 World Destinations III	3	0			3
TAT 122 Cars, Rails, and Rooms	3	2			4
TAT 210 Travel Sales and Marketing	4	0			4
TAT 212 Cruise Marketing and Sales	3	0			3
TAT 214 Tour Planning and Escorting	3	0			3
TAT 220 Travel Agency Management	3	0			3
COE 112 Cooperative Education	0	0		20	2
BUS 230 Small Business Management	3	0			3
BUS 255 Org. Behavior in Business	3	0			3
CIS 111 Basic PC Literacy	1	2			2
CIS 172 Intro to the Internet	2	2			3
General Education Core Requirements					
ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research and Reporting	3	0			3
MAT 115 Mathematical Models	3	0			3
Choose one course from the following:					
COM 110 Introduction to Communication	3	0			3
COM 231 Public Speaking	3	0			3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0			3
Students must choose one course from the following:					
ECO 251 Principles of Microeconomics	3	0			3
GEO 111 World Regional Geography	3	0			3
HIS 236 North Carolina History	3	0			3
Total Credit Hours					**68**

Travel and Tourism Technology Diploma (D25440)

The Travel and Tourism Diploma curriculum is designed to train individuals to become travel consultants capable of planning and arranging a full spectrum of travel components for clients.

The graduate of this program will be primarily trained for entry level employment by travel agencies, airlines, the hospitality industry, rental car companies, tour operators, cruise lines, rail companies, and visitors' centers.

Diploma Awarded

A diploma in Travel and Tourism Technology (A25440) is awarded by the College upon completion of this program.

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 110 Introduction to Travel and Tourism	3	0			3
TAT 112 Domestic Reservations and Ticketing	3	2			4
TAT 114 International Reservations and Ticketing	3	2			4
TAT 116 World Destinations I	3	0			3
TAT 118 World Destinations II	3	0			3
TAT 120 World Destinations III	3	0			3
TAT 122 Cars, Rails, and Rooms	3	2			4
TAT 210 Travel Sales and Marketing	4	0			4
TAT 212 Cruise Marketing and Sales	3	0			3
TAT 214 Tour Planning and Escorting	3	0			3
TAT 220 Travel Agency Management	3	0			3
COE 112 Cooperative Education	0	0		20	2

General Education Core Requirements:

ENG 111 Expository Writing	3	0			3
Choose one Communications course from the following:					
COM 110 Introduction to Communication	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					45

Travel and Tourism Certificates (C25440)

Specialization Certificates

Airline Computer Reservation Certificate (C25440 - C1)

The Airline Computer Reservation Certificate is designed to train individuals who currently are working on Sabre, Apollo, or Worldspan Reservation Systems and convert their present knowledge to the System One/Amadeus Information System through Windows application.

Instruction includes industry terminology, domestic and international reservations and ticketing as well as car, hotel, and rail reservations.

The successful completion of this program will prepare the student for employment by travel agencies and airlines. This curriculum is approved by the System One/Amadeus Certified School Program.

Specialization Certificate

This certificate can be earned in the Travel and Tourism Technology Program (A25440).

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 112 Domestic Reservations and Ticketing	**3**	**2**			**4**
TAT 114 International Reservations and Ticketing	3	2			4
TAT 122 Cars, Rails, and Rooms	3	2			4
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**14**

Cruise Marketing and Sales Certificate (C 25440 - C2)

The certificate in Cruise Marketing and Sales is designed to train individuals to become cruise-only travel consultants capable of planning and arranging cruise vacations.

Instruction includes terminology, cruise line and agency careers, reservation and document procedures, domestic and international destination proficiency, sales techniques and practical skills necessary for the day-to-day operation of a retail cruise travel firm.

Upon successful completion of this certificate program, the student will be primarily trained for employment by cruise-only travel agencies or those retail full service agencies that promote cruise vacations.

Note

At the discretion of the student's faculty advisor, some prerequisites listed in the course descriptions may be waived for certificate students. Consult with your faculty advisor regarding waiver of prerequisites.

Specialization Certificate

This certificate can be earned in the Travel and Tourism Technology Program (A 25440).

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 116 World Destinations I	**3**				**3**
TAT 118 World Destinations II	3				3
TAT 120 World Destinations III	3				3
TAT 210 Travel Marketing and Sales	**4**				**4**
TAT 212 Cruise Marketing and Sales	3				3
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Tour Planning and Escorting Certificate (A 25440 - C3)

The certificate in Tour Planning and Escorting is designed to train individuals to become tour planners as well as tour escorts capable of planning, arranging, and escorting independent and group tour vacations.

Instruction includes terminology, tour operator, and escorting careers, reservation, and document procedures, domestic and international destination proficiency, sales techniques, and practical skills necessary for the day-to-day operation of a retail tour firm.

Upon successful completion of this certificate program, the student will be primarily trained for employment by tour operators, destination management, or motorcoach companies.

Note

At the discretion of the student's faculty advisor, some prerequisites listed in the course descriptions may be waived for certificate students. Consult with your faculty advisor regarding waiver of prerequisites.

Specialization Certificate

This certificate can be earned in the Travel and Tourism Technology Program (A 25440).

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Department. For more information, call the Program chair at 704-330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 116 World Destinations I	**3**				**3**
TAT 118 World Destinations II	3				3
TAT 120 World Destinations III	3				
TAT 210 Travel Marketing and Sales	**4**				**4**
TAT 214 Tour Planning and Escorting	3				3
COE 112 Cooperative Education			20		2
Total Credit Hours					**18**

Turfgrass Management Technology (A15420)

The Turfgrass Management Technology Curriculum is

designed to provide skills necessary to perform duties related to management of golf courses, sports fields, lawn care, irrigation design, and sod production.

Course work includes turfgrass management, irrigation, ornamental horticulture, soil science, entomology, and plant pathology, as well as courses in communications, computers, and the social sciences.

Graduates should qualify for employment at golf courses, local, state, and national parks, sports complexes, highway vegetation and turf maintenance companies, and private and public gardens. Graduates should be prepared to take the North Carolina Pesticide Applicator's Examination.

Degree Award

The Associate in Applied Science in Turfgrass Management Technology is awarded by the College upon completion of this program.

For More Information

The Turfgrass Management Technology program is in the Northeast Division. For more information call the Program chair at (704) 330-6926, weekdays from 8:00 a.m. – 5:00 p.m. The Program Counselor can be reached at (704) 330-6463 or 704-330-6881.

Admission

- A High School Diploma or equivalent (available through CPCC) is required.
- CPCC placement tests are required in English and Mathematics. Advancement studies Mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TRF 110 Intro to Turfgrass Culture and Identification	**3**	**2**			**4**
TRF 210 Turfgrass Equipment Management	**1**	**2**			**3**
TRF 230 Turfgrass Management Applications	**1**	**2**			**2**
TRF 152 Landscape Maintenance	3	2			4
TRF 220 Turfgrass Calculations	**2**				**2**
TRF 120 Turfgrass Irrigation and Design	2	4			4
HOR 164 Horticulture Pest Management	2	2			3
HOR 166 Soils and Fertilizers	**2**	**2**			**3**
HOR 112 Landscape Design I	2	3			3
HOR 160 Plant Materials I	2	2			3
HOR 162 Applied Plant Science	**2**	**2**			**3**
HOR 273 Horticulture Management Marketing	3				3
CIS 111 Basic PC Literacy	1	2			2
COE 111 Cooperative Work Experience				10	1
Technical Electives (9 creidt hours to be selected from the following courses)					
TRF 250 Golf/Sports Field Construction	2	4			4
HOR 114 Landscape Construction	2	2			3
HOR 116 Landscape Management I	2	2			3
HOR 257 Arboriculture Practices	1	3			2
HOR 265 Advanced Plant Materials	1	2			3
TRF 293 Selected Topics in Turfgrass Management	1-3	0-6			3
COE 112 Cooperative Work Experience II				20	2
Total Major Hours					**52**

General Education Core Rquirements

ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
COM 110 Introduction to Communication	3				3
+MAT 115 Mathematical Models	2	2			3
Students must choose a minium of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog. Students must choose a minimun of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.					
General Education Hours					**18**
Total Credit Hours					**70**

Turfgrass Management Technology Certificate (C15420)

This certificate is designed to prepare individuals for basic entry-level positions in the area of Turfgrass Management Technology. Course work includes turfgrass culture and identication, equipment, irrigation, pest management and soils, and fertilizers.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TRF 110 Intro to Turfgrass Culture and Identification	3	2			4
TRF 210 Turfgrass Equipment Management	1	2			3
TRF 230 Turfgrass Management Applications	1	2			2
HOR 164 Horticulture Pest Management	2	2			3
HOR 166 Soils and Fertilizers	2	2			3
HOR 215 Landscape Irrigation	2	2			3
Total Credit Hours					**18**

Turfgrass Management Technology Diploma (D15420)

This diploma is designed to prepare individuals for entry-level positions in the area of Turfgrass Management Technology. Course work includes turfgrass culture and idenification, equipment, irrigation, pest management and soils, and fertilizers, along with other turf-related courses and general education courses.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TRF 110 Intro to Turfgrass Culture and Identification	3	2			4
TRF 120 Turfgrass Irrigation and Design	2	4			4
TRF 210 Turfgrass Equipment Management	1	2			3
TRF 230 Turfgrass Management Applications	1	2			2
HOR 164 Horticulture Pest Management	2	2			3
HOR 166 Soils and Fertilizers	2	2			3
Technical Electives (14 hours to be selected from the following courses)					
TRF 152 Landscape Maintenance	3	2			4
TRF 220 Turfgrass Calculations	2				2
TRF 250 Golf/Sport Field Construction	2	4			4
TRF 293 Selected Topics in Turfgrass Management	1-3	0-6			1-3
HOR 112 Landscape Design 1	2	3			3
HOR 114 Landscape Construction	2	2			3
HOR 116 Landscape Management	2	2			3
HOR 118 Equipment Operation and Maintenance	1	3			2
HOR 160 Plant Materials I	2	2			3
HOR 162 Applied Plant Science	2	2			3
HOR 257 Arboriculture Practices	1	3			2
HOR 265 Advanced Plant Materials	1	2			2
HOR 273 Horticulture Management and Marketing	3				3
COE 111 Cooperative Work Experience I				10	1
COE 112 Cooperative Work Experience II				20	2
Total Major Hours					**33**

General Education Courses

ENG 111 Expository Writing	3				3
MAT 115 Mathematical Models	2	2			3
Total General Education Hours					**6**
Total Credit Hours					**39**

Web Page Developer Certificate (C25290-C1)

The Web Page Developer Certificate is designed to prepare the individual to be productive in the use of computers and the Internet. This certificate will introduce the student to the PC and PC software, basic networking terminology and structures, basic Internet terminology, browsers and the use of Netscape Navigator, Internet email, basic HTML code, and creating a web page. By completion students should be able to use a variety of PC tools to develop a functional web page and be ready for an entry-level position as a web page developer.

Web Page Developer Certificate (C25290-C1)

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to the Computers	2	2			3
CIS 172 Introduction to the Internet	2	2			3
CSC 160 Introduction to Internet Programming2	2				3
NET 110 Data Communication/ Networking	2	2			3
COE110 World of Work	1	0			1
Total Certificate Credit Hours					**13**

Welding Technology (A50420)

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical applications.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self employment.

Degree Awarded

The Associate in Applied Science - Welding Technology is awarded by the College upon completion of this program.

For More Information

The Welding Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4428, or the Division office at 704-330-4445, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (Tig) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
WLD 122 G.M.A.W. (Mig) Plate/Pipe	1	6			3
WLD 132 G.T.A.W. (Tig) Plate/Pipe	1	6			3
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 231 G.T.A.W. (Tig) Pipe	1	6			3
WLD 215 S.M.A.W. (Stick) Pipe	1	9			3
WLD 151 Fabrication I	2	6			4
WLD 251 Fabrication II	2	6			4
WLD 261 Certification Practices	1	3			2
WLD 262 Inspection & Testing	2	2			3
WLD 143 Welding Metallurgy	1	2			2
OR					
MEC 172 Introduction to Metallurgy	2	2			3
CIS 110 Introduction to Computers	2	2			3
OR					

CIS 111 Basic PC Literacy	1	2		2
Students must select 4 credit hours from courses below:				
COE 112 Co-op Work Experience I			20	2
WLD 145 Thermoplastic Welding	1	3		2
WLD 111 Oxy-Fuel Welding	1	3		2
PHY 110 Conceptual Physics	3	0		3
PHY 110A Conceptual Physics Lab	0	2		1
WLD 265 Automated Welding/Cutting	2	6		4
WLD 190 Special Topics in Welding	1	6		3
WLD 221 GMAW (MIG) Pipe	1	6		3
WLD 112 Basic Welding Processes	1	3		2

General Education Core Requirements

Students must complete one English course and one COM course from the following:				
ENG 111 Expository Writing	3	0		3
COM 110 Introduction to Communications	3	0		3
OR				
COM 231 Public Speaking	3	0		3
Students must complete one (1) course from the following:				
MAT 115 Mathematical Models	2	2		3
MAT 140 Survey of Mathematics	3	0		3
MAT 161 College Algebra	3	0		3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0		3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0		3
Total Credit Hours				**73-75**

Welding Technology Diploma (D50420)

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical applications.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self employment.

Diploma Awarded

A Diploma in Welding Technology is awarded by the College upon completion of this program.

For More Information

The Welding Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4428 or the Division office at 704-330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (Tig) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 122 G.M.A.W. (Mig) Plate/Pipe	1	6			3
WLD 132 G.T.A.W. (Tig) Plate/Pipe	1	6			3
WLD 221 G.M.A.W.(MIG) Pipe	1	6			3
WLD 231 G.T.A.W. (Tig) Pipe	1	6			3
WLD 151 Fabrication I	2	6			4
					38

General Education Core Requirements

MAT 115 Mathematic Models	2	2			3
ENG 111 Expository Writing	3	0			3
CIS 110 Introduction to Computers	2	2			3
OR					
CIS 111 Basic PC Literacy	1	2			2
					9
Total Credit Hours					**46-47**

Welding Technology Certificate (C50420)

Specialization Certificates

The certificates listed below can be earned in the Welding Technology Program (A50420).

For More Information

For more information, call the Program Chair at 704-330-4428 or the Technical Careers Division at 704-330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.

Welding Technology With a Specialization in S.M.A.W. of Pipe Welding (C50420-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 215 S.M.A.W. (Stick) Pipe	1	9			3
WLD 141 Symbols & Specifications	2	2			3
Total Credit Hours					**17**

Welding Technology With a Specialization in Entry Level Welding (C50420-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (MIG) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (TIG) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
Total Credit Hours					**18**

Welding Technology With a Specialization in Handyman Welding (C50420-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (MIG) F.C.A.W. Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
Total Credit Hours					**14**

Welding Technology With a Specialization in Inert Gas Welding (C50420-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 121 G.M.A.W. (MIG) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (TIG) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
Total Credit Hours					**13**

Welding Technology With a Specialization in Advanced Level Welding (C50420-C5)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 116 SMAW (Stick) Plate/Pipe	1	9			4
WLD 132 G.T.A.W. (TIG) Plate/Pipe	1	6			3
WLD 122 G.M.A.W. (MIG) Plate/Pipe	1	6			3
WLD 261 Certification Practices	1	3			2
Total Credit Hours					**12**

Welding Technology With a Specialization in Expert Level Welding (C50420-C6)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 215 SMAW (Stick) Pipe	1	9			4
WLD 231 G.T.A.W. (TIG) Pipe	1	6			3
WLD 221 G.M.A.W. (MIG) Pipe	1	6			3
WLD 262 Inspection & Testing	2	2			3
WLD 143 Welding Metallurgy	1	2			2
Total Credit Hours					**15**

Welding Technology With a Specialization in Race Car Welding (C50420-C7)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 121 G.M.A.W. (MIG) FCAW/Plate	2	6			4
WLD 131 G.T.A.W. (TIG) Plate	2	6			4
WLD 190A Special Topics in Welding-Race Car Welding	1	6			3
Total Credit Hours					**13**

Optional General Education Courses For A.A.S. Degree

HUMANITIES/FINE ARTS

Art

ART 111 Art appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History

Dance

DAN 110 Dance Appreciation
DAN 211 Dance History
DAN 212 Dance History II

Drama

DRA 111 Theatre Appreciation
DRA 112 Literature of Theatre
DRA 122 Oral Interpretation

Foreign Languages

French

FRE 111 Elementary French I
FRE 112 Elementary French II
FRE 211 Intermediate French I
FRE 212 Intermediate French II

German

GER 111 Elementary German I
GER 112 Elementary German II
GER 211 Intermediate German I
GER 212 Intermediate German II

Spanish

SPA 111 Elementary Spanish I
SPA 112 Elementary Spanish II
SPA 211 Intermediate Spanish I
SPA 212 Intermediate Spanish II

Interdisciplinary Humanities

HUM 115 Critical Thinking
HUM 130 Myth In Human Culture
HUM 160 Introduction To Film
HUM 211 Humanities I
HUM 212 Humanities II
HUM 220 Human Values and Meaning

Literature

ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II

Music

MUS 110 Music appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera & Musical Theatre

Philosophy

PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction To Logic

Religion

REL 110 World Religion
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America

MATHEMATICS FOR A.A.S. DEGREES

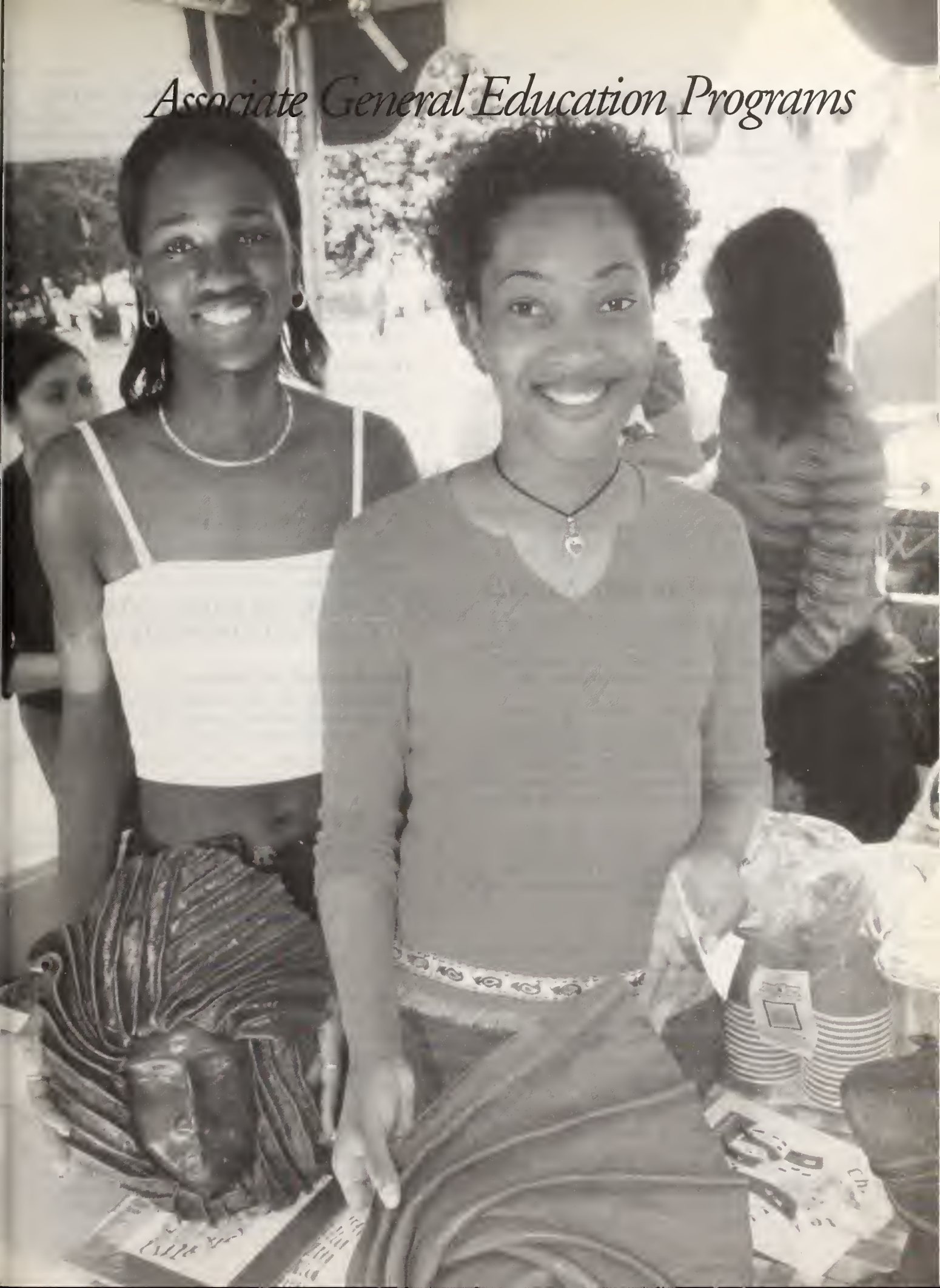
MAT 115 Mathematical Models
MAT 140 Survey of Mathematics
MAT 155 Statistical Analysis
MAT 161 College Algebra
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

SOCIAL/BEHAVIORAL SCIENCES

ANT 210 General Anthropology
ANT 220 Cultural Anthropology
ECO 151 Survey of Economics
ECO 251 Prin of Microeconomics
ECO 252 Prin of Macroeconomics
GEO 111 World Regional Geography
HIS 111 World Civilizations I
HIS 112 World Civilizations II
HIS 131 American History I
HIS 132 American HistoryII
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations
PSY 150 General Psychology
PSY 241 Developmental Psych
PSY 281 Abnormal Psychology
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 225 Social Diversity


CPCC
La Tonya Gleaton
Family Literacy

Associate General Education Programs



General Education Goals for AGE Degree (A10300)

This program is designed for students who want to take courses to meet a special personal or vocational objective. Students who intend to transfer to another college should seek the AA, AS, or AFA degrees. Students who are interested in a complete career-oriented program should seek an AAS degree.

Degree Awarded

The Associate in General Education Degree is awarded by the College upon completion of 64-65 semester hours.

- If a student has earned another CPCC degree, a second degree will be awarded based on transcript evaluation. The student seeking a second degree must submit an application to the CPCC graduation office.
- Completion of a minimum of 21 semester credit hours earned at CPCC, 12 of which must be the final credit hours prior to graduation.

For more information

For more information, contact the Program Counselor at (704) 330-6954, weekdays 8 a.m. - 5 p.m.

Admissions

Official copies of high school and all other college/university transcripts must be on file in the Student Records Office.

CPCC GENERAL EDUCATION GOALS

Through its general education program, Central Piedmont seeks to provide a high quality of education for its students and to ensure that graduates have the necessary knowledge, skills, and abilities to function effectively in their personal and professional lives.

Central Piedmont Community College defines general education as acquiring and integrating the general knowledge, intellectual skills, attitudes, and experiences needed by an individual to achieve a level of competency appropriate for a two-year college graduate, preparing for advanced work and lifelong learning, and functioning more fully as a person and as a member of society.

The following goals identify the essence of a general education. Although some competencies may be achieved primarily through successful completion of particular courses, students should have the opportunity to develop and use many of these skills throughout their programs.

I. READING

Students will demonstrate the ability to obtain meaning from printed, electronic, and graphical resources.

II. COMMUNICATION

Students will effectively communicate both orally and in writing. Students will demonstrate the ability to locate, critically evaluate, and present information.

III. MATHEMATICS

Students will apply mathematical concepts and skills to analyze, manipulate, and interpret quantitative data.

IV. COMPUTER SKILLS

Students will demonstrate the basic computer skills necessary to function in a technological world.

V. CRITICAL THINKING / PROBLEM SOLVING

Students will demonstrate an understanding of solving problems by recognizing the problem; reviewing information about the problem; developing plausible solutions; and evaluating results.

VI. CULTURAL AWARENESS

Students will demonstrate knowledge of cultural similarities and differences.

VII. SOCIAL / BEHAVIORAL SCIENCES

Students will demonstrate an understanding of the influence of the individual on group behavior and conversely, the influence of the group on the individual.

VIII. NATURAL SCIENCES

Students will demonstrate comprehension of the major steps of the scientific method.

IX. HUMANITIES / FINE ARTS

Students will demonstrate knowledge of the humanities and critical skills in assessing cultural/artistic merit and significance.

X. HEALTH / PHYSICAL EDUCATION

Students will demonstrate knowledge and/or skills of health and physical education.

I. GENERAL EDUCATION GOALS - COURSE REQUIREMENTS

GOAL I. COMMUNICATIONS

Students must successfully complete two ENG courses and one COM course from the following:

ENG 111 Expository Writing
and
ENG 112 Argument-Based Research
or
ENG 113 Literature-Based Research
or
ENG 114 Professional Research and Reporting
COM 110 Introduction to Communications
or
COM 120 Interpersonal Communications
or
COM 231 Public Speaking

GOAL II. NATURAL SCIENCE/MATHEMATICAL SKILLS

Students must successfully complete one science course numbered 110 or higher from the following prefixes:
AST, BIO, CHM, GEL, GEO, PHS, PHY
Students must successfully complete one Math course (MAT) numbered 115 or higher.

GOAL III. TECHNOLOGY

Students must successfully complete one computer course (CIS or CSC) numbered 110 or higher or any computer-based course approved by the Dean of South Campus, Business, International, and General Studies; or a student may demonstrate

basic computer competencies through other course work or testing. The Division Directors of Information Technologies will determine equivalent competency.

Goal IV. PROBLEM SOLVING AND CRITICAL THINKING

Problem solving and critical thinking are incorporated throughout the curriculum at Central Piedmont Community College.

Goal V. HUMANITIES AND FINE ARTS

Students must successfully complete one humanities/fine arts course 110 or higher from the following prefixes:

ASL, ART, DAN, DRA, FRE, GER, SPA, HUM, ENG (125 or higher), MUS, PHI

Goal VI. INTERNATIONAL AWARENESS

International awareness is incorporated throughout the curriculum at Central Piedmont Community College.

Goal VII. SOCIAL/BEHAVIORAL SCIENCES (SELF AND SOCIETY)

Students must successfully complete one course numbered 110 or higher from the following prefixes:

ANT, ECO, GEO, HIS, POL, PSY, SOC

Goal VIII. HEALTH/PHYSICAL EDUCATION

Students must successfully complete at least 2 semester hours credit in Physical Education (PED) or Health Education (HEA).

II. ELECTIVES

Students must complete the 64 SHC requirement with electives chosen from 110 or higher level courses. A maximum of 7 SHC in health, physical education, college orientation and/or study skills may be included as other required hours.

ADDITIONAL OPPORTUNITIES

Cooperative Education

When approved by the Faculty Co-op Coordinator, a maximum of 4 Cooperative Education work experience credits may be counted toward the degree.

Educational and Career Planning

Educational and career counseling are available to all students at CPCC through Counseling and Advisement Services. Students who desire more extensive educational and occupational planning may take either or both of these courses as electives:

ACA 118 College Study Skills
ACA 120 Career Assessment



College Transfer Programs

College Transfer Programs

Associate in Arts (A.A.) (A10100)

Associate in Science (A.S.) (A10400)

Associate in Fine Arts Degree (A.F.A.) (A10200)

Central Piedmont offers three degrees designed for college transfer – the Associate in Arts (A.A.), the Associate in Science (A.S.) and the Associate in Fine Arts (A.F.A.). The A.A. degree emphasizes the liberal arts; the Associate in Science degree emphasizes science and mathematics; the Associate in Fine Arts degree emphasizes art, dance, and music.

The degree programs offer courses comparable to the freshman and sophomore levels at four-year colleges and universities. Students who want to transfer to senior institutions should work with CPCC college transfer counselors. The transfer counselors will help select the degree and the courses which will best meet the student's interests and the requirements of transfer institutions. Because course requirements vary among four-year colleges and universities, students should obtain a current catalog from the school they plan to attend and discuss their plans with a representative from that institution.

Students seeking to transfer to one of the UNC system institutions should visit the following Web sites: **www.ga.unc.edu and www.ga.unc.edu/student_info/.**

For More Information

Call the Information Center - (704) 330-2722 or visit the Welcome Center in the Garinger Building.

Admissions

Students must have a high school diploma or its equivalent. Students must take placement tests in English, mathematics, and reading to enroll in English and mathematics courses.

General Requirements

Students must complete a minimum of 64 semester hours of transfer courses including the required general education courses. A minimum of 21 semester credit hours must be earned at CPCC; 12 of them must be the final credit hours prior to graduation. (Exceptions can be made with the approval of the Dean of South Campus, Business, International and General Studies).

If students have earned a CPCC transfer degree, a second degree will be awarded based on transcript evaluation. The student seeking a second degree must submit an application to the CPCC graduation office..

CPCC GENERAL EDUCATION GOALS

Through its general education program, Central Piedmont seeks to provide a high quality of education for its students and to ensure that graduates have the necessary knowledge, skills, and abilities to function effectively in their personal and professional lives.

Central Piedmont Community College defines general education as acquiring and integrating the general knowledge, intellectual skills, attitudes, and experiences needed by an individual to achieve a level of competency appropriate for a two-year college graduate, preparing for advanced work and life-long learning, and functioning more fully as a person and as a member of society.

The following goals identify the essence of a general education. Although some competencies may be achieved primarily through successful completion of particular courses, students should have the opportunity to develop and use many of these skills throughout their programs.

I. READING

Students will demonstrate the ability to obtain meaning from printed, electronic, and graphical resources.

II. COMMUNICATION

Students will effectively communicate both orally and in writing. Students will demonstrate the ability to locate, critically evaluate, and present information.

III. MATHEMATICS

Students will apply mathematical concepts and skills to analyze, manipulate, and interpret quantitative data.

IV. COMPUTER SKILLS

Students will demonstrate the basic computer skills necessary to function in a technological world.

V. CRITICAL THINKING / PROBLEM SOLVING

Students will demonstrate an understanding of solving problems by recognizing the problem; reviewing information about the problem; developing plausible solutions; and evaluating results.

VI. CULTURAL AWARENESS

Students will demonstrate knowledge of culturalsimilarities and differences.

VII. SOCIAL / BEHAVIORAL SCIENCES

Students will demonstrate an understanding of the influence of the individual on group behavior and conversely, the influence of the group on the individual.

VIII. NATURAL SCIENCES

Students will demonstrate comprehension of the major steps of the scientific method.

IX. HUMANITIES / FINE ARTS

Students will demonstrate knowledge of the humanities and critical skills in assessing cultural/artistic merit and significance.

X. HEALTH / PHYSICAL EDUCATION

Students will demonstrate knowledge and/or skills of health and physical education. NOTE: This goal does not apply to the Associate in Fine Arts Degree.

College Transfer Degree Requirements

Students electing to participate in the following CAA must also meet CPCC's specific General Education requirements. In order to meet these requirements the student must elect and complete:

- ***one communication course (COM)***
- ***one computer course (CIS/CSC)***
- ***2 SHC in physical education (PED) in A.A.***
- ***1 SHC in physical education (PED) in A.S.***

Comprehensive Articulation Agreement (CAA)

The governing boards of the North Carolina Community College System and the University of North Carolina, in response to a legislative mandate, have approved a Comprehensive Articulation Agreement (CAA) which addressed in a system-wide manner the transfer of students from the community colleges to the universities. This CAA is for the A.A. and A.S. degrees. It specifies a general education transfer core of 44 semester hours and reflects the distribution of discipline areas commonly included in institution-wide, lower division, general education requirements for the baccalaureate degree. The transfer core specifies study areas and semester hours credit (SHC) distributions for each. They are English composition (6 SHC), humanities/fine arts (12 SHC), social/ behavioral sciences (12 SHC), and natural sciences/mathematics (14 SHC with sciences 8 SHC and math 6 SHC). Community colleges and universities have identified community college courses appropriate to a general education transfer core. Those courses are listed in this section of the catalog.

The 44 hour General Education transfer core, if completed successfully with grade C or better in each course, will transfer as a block across the community college system and to UNC institutions. No D grades will transfer.

Community college graduates receiving the A.A. or A.S. degree who have successfully completed the general education transfer core will be considered to have fulfilled the institution-wide, lower division, general education requirements of the receiving UNC institution and will have achieved junior status. *Completion of the A.A. or A.S. degree, however, does not constitute admission to a North Carolina state university or to any professional school or specific program at a university.* In addition, students must meet the specific senior institution's foreign language and/or health and physical education requirements. These requirements, if applicable, may be completed prior to or after transfer to the senior institution. Also, 3 SHC in speech/communications can be substituted for 3 SHC in the humanities/fine arts requirements; however, speech/communications cannot substitute for the literature requirement in the humanities/fine arts category.

Community college students that have completed the 44 SHC general education core with the proper distribution of hours, but have not completed the associate degree, will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving UNC institution. To be eligible a student must have an overall GPA of 2.0 on a 4.0 scale at the time of transfer and a grade of "C" or better on all general education core courses.

Community college students that have not completed the general education core will have their transcripts evaluated on a course-by-course basis by the receiving institution.

Private Institutions Endorsing the Comprehensive Articulation Agreement

At the time of publishing, the following private colleges and universities have agreed to participate in the Comprehensive Articulation Agreement with the North Carolina Community College System:

Barber-Scotia College
Barton College
Belmont Abbey College
Bennett College
Campbell University
Catawba College
Chowan College
Johnson C. Smith University
Livingston College
Mars Hill College
Mount Olive College
Pfeiffer University
Queens College
Saint Andrews College
Wingate University

STUDENTS PARTICIPATING IN THE CAA

CURRICULUM STANDARDS

ASSOCIATE IN ARTS (A10100) AND ASSOCIATE IN SCIENCE (A10400) DEGREE PROGRAMS

The Associate in Arts and Associate in Science degrees shall be granted for planned programs of study consisting of a minimum of 64 and a maximum of 65 semester hours of college transfer courses. # Within the degree program, the institution shall include opportunities for achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers (SACS Criteria, 4.2.2).

Courses are approved for transfer through the Comprehensive Articulation Agreement. Courses may also transfer through bilateral agreements between institutions. Courses offered through bilateral agreements **may not** transfer to all receiving institutions.

GENERAL EDUCATION CORE (44 SHC)*

The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC)

Humanities/Fine Arts (12 SHC)**

Four courses from at least **three** of the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. **At least one course must be a literature course.**

Social/Behavioral Sciences (12 SHC)

Four courses from at least **three** of the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology. **At least one course must be a history course.**

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Associate in Arts: Two courses, including accompanying laboratory work, from the biological and physical science disciplines are required.

Associate in Science: A two-course sequence in general biology, general chemistry, or general physics is required.

Mathematics (6 SHC):

Associate in Arts: At least one course in introductory mathematics is required; the other course may be selected from among other quantitative subjects, such as computer science and statistics.

Associate in Science: At least one course in mathematics at the precalculus algebra level or above is required; the other course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science and statistics.

OTHER REQUIRED HOURS (20-21 SHC)*

Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience may be included up to 1 SHC for career exploration.

Associate in Arts

A minimum of 20 SHC of college transfer general education, approved electives, and/or pre-major courses is required beyond the 44 SHC core.

Associate in Science

A minimum of 14 SHC of college transfer courses in mathematics, natural sciences, computer science, and/or other pre-major courses is required beyond the 44 SHC core. The remaining hours may be selected from approved electives and/or pre-major courses .

Total Semester Hours Credit (SHC) in Program: 64-65

* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

** 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.

CAA College Transfer Core Courses

The following list of courses (44 SHC) **must be** used to satisfy the 44 hour General Education Core requirements. ***SUBSTITUTIONS FROM OTHER LISTS ARE NOT ALLOWED.***

Associate in Arts (AA)
Associate in Science (AS)

ENGLISH COMPOSITION *(6 SHC)* (CPCC Goal I)
ENG 111 Expository Writing
and one of the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research & Reporting

Associate in Arts (AA)
Associate in Science (AS)

HUMANITIES/FINE ARTS *(12 SHC**)* (CPCC Goal V)

FOUR courses from at least **THREE** of the following discipline areas are required:

Art, Dance, Drama, Foreign Languages, Inter-disciplinary Humanities, Literature, Music, Philosophy and Religion. <u>At least one must be a literature course.</u>

ART
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History

DANCE
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II

DRAMA
DRA 111 Theatre Appreciation
DRA 112 Literature of Theatre
DRA 122 Oral Interpretation

FOREIGN LANGUAGES
FRE 111 Elementary French I
FRE 112 Elementary French II
FRE 211 Intermediate French I
FRE 212 Intermediate French II
GER 111 Elementary German I
GER 112 Elementary German II
GER 211 Intermediate German I
GER 212 Intermediate German II
SPA 111 Elementary Spanish I
SPA 112 Elementary Spanish II
SPA 211 Intermediate Spanish I
SPA 212 Intermediate Spanish II

INTERDISCIPLINARY HUMANITIES
HUM 130 Myth In Human Culture
HUM 160 Introduction To Film
HUM 211 Humanities I
HUM 212 Humanities II
HUM 220 Human Values and Meaning

LITERATURE <u>(one is required)</u>
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II

MUSIC
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theater

PHILOSOPHY
PHI 215 Philosophical Issues I
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II

RELIGION
REL 110 World Religion
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America

**Three SHC in Speech/Communications may be substituted for 3 SHC in the above Humanities/Fine Arts list. Speech/Communications may not substitute for the literature requirement.

SPEECH/COMMUNICATIONS (CPCC Goal I)
COM 110 Introduction to Communication
COM 120 Interpersonal Communications
COM 231 Public Speaking

Associate in Arts (AA)
Associate in Science (AS)

SOCIAL/BEHAVIORAL SCIENCES *(12 SHC)* (CPCC Goal VII)

FOUR Courses from at least **THREE** of the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology. <u>At least one must be History course.</u>

ANTHROPOLOGY
ANT 210 General Anthropology
ANT 220 Cultural Anthropology

ECONOMICS
ECO 151 Survey of Economics

ECO 251 Principles of Microeconomics
ECO 252 Principles of Macroeconomics

GEOGRAPHY
GEO 111 World Regional Geography

HISTORY (One is required)
HIS 111 World Civilization I
HIS 112 World Civilization II
HIS 131 American History I
HIS 132 American History II

POLITICAL SCIENCE
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations

PSYCHOLOGY
PSY 150 General Psychology
PSY 241 Developmental Psychology
PSY 281 Abnormal Psychology

SOCIOLOGY
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 225 Social Diversity

Associate in Arts (AA) Associate in Science (AS)

NATURAL SCIENCES/MATHEMATICS (14 SHC) (CPCC Goal II)

NATURAL SCIENCES FOR ASSOCIATE IN ARTS (AA): Two (2) courses, including accompanying laboratory work from the Biological and Physical Science disciplines are required:

BIOLOGICAL SCIENCES
BIO 110 Principles of Biology
BIO 111 General Biology I
BIO 112 General Biology II
BIO 120 Introductory Botany
BIO 130 Introductory Zoology

PHYSICAL SCIENCES

ASTRONOMY
AST 111 Descriptive Astronomy
AST 111A Descriptive Astronomy Lab
AST 151 General Astronomy I
AST 151A General Astronomy I Lab

CHEMISTRY
CHM 131 Introduction to Chemistry
CHM 131A Introduction to Chemistry Laboratory
CHM 132 Organic and Biochemistry
CHM 151 General Chemistry I
CHM 152 General Chemistry II

GEOLOGY
GEL 113 Historical Geology
GEL 120 Physical Geology

PHYSICS
PHY 110 Conceptual Physics
PHY 110A Conceptual Physics Laboratory
PHY 151 College Physics I
PHY 152 College Physics II
PHY 251 General Physics I
PHY 252 General Physics II

NATURAL SCIENCES FOR ASSOCIATE IN SCIENCE (AS): A two (2) course sequence in General Biology, General Chemistry, or General Physics is required.

BIOLOGY
BIO 111 General Biology I
and
BIO 112 General Biology II

CHEMISTRY
CHM 151 General Chemistry I
and
CHM 152 General Chemistry II

PHYSICS
PHY 151 College Physics I
and
PHY 152 College Physics II
or
PHY 251 General Physics I
and
PHY 252 General Physics II

MATHEMATICS FOR ASSOCIATE IN ARTS (AA): At least one course in introductory mathematics is required; the other course may be selected form other quantitative subjects, such as computer science and statistics.

MATHEMATICS (One Required)
MAT 140 Survey of Mathematics
MAT 161 College Algebra
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 263 Brief Calculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

QUANTITATIVE OPTIONS (CPCC Goal III)

COMPUTER SCIENCE
CIS 110 Introduction to Computers
CIS 115 Introduction to Programming and Logic

STATISTICS
MAT 155 Statistical Analysis

MATHEMATICS FOR ASSOCIATE IN SCIENCE (AS): At least one (1) course in mathematics at the precalculus algebra level or above is required, the other course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science and statistics.

MATHEMATICS (ONE (1) COURSE REQUIRED)
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 263 Brief Calculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

QUANTITATIVE OPTIONS (CPCC Goal III)
COMPUTER SCIENCE
CIS 110 Introduction to Computers

CIS 115 Introduction to Programming and Logic

STATISTICS
MAT 155 Statistical Analysis

Bi-Lateral Agreements: CPCC to UNCC

Central Piedmont Community College and University of North Carolina at Charlotte are currently finalizing bi-lateral articulation agreements for four major areas. They were not complete when this catalog was printed; however, they will be in place beginning fall term 2001. For a copy of these articulation agreements see a college transfer counselor (704) 330-6433, the dean for the South Campus (704) 330-4201, or visit the CPCC website (cpcc.cc.nc.us).

Students seeking a major at UNCC in one of the major areas listed below will earn the Associate of Arts Degree (A10100) at CPCC. These agreements are ***not CAA transferable*** to other UNC system schools. They are specifically for students transferring from CPCC to UNCC.

The major areas are:

Elementary Education
Middle Grade Education
Special Education
Child and Family Development (Birth to Kindergarten Licensure)

Associate in Arts: Compressed Degree (Evening Program)

If you work full time during the day and want to earn an Associate in Arts (A.A.) degree at night, this is the program for you. At CPCC, we've designed an evening college program that traditionally takes five years to complete. We have compressed it into just two years. With CPCC's Compressed Degree Program, you get to keep earning an income during the day, while earning a transferable Associate's Degree in Arts at night in two years or less!

Compressed Degree classes are taught in the evening in eight-week segments, and students carry a maximum of only two classes at any given time. During Fall and Spring semesters, students can earn at least 12 semester hour credits by taking two courses during each eight-week segment of these 16-week semesters. Students can earn 8 semester hour credits during Summer Semester. All classes operate on CPCC's published Fall, Spring, and Summer academic schedule.

If you have college credit hours that will transfer to CPCC, or you are already a student here, your hours will be matched against the A.A. degree requirements, which may allow you to graduate through the Compressed Associate in Arts Degree Evening Program in less than two years. 65 Credit Hours are required for this degree.

For more information

Advisement is offered for this program by contacting Dianne Cates at (704) 330-6946.

Pre-Major Agreements

By legislative mandate, joint academic disciplinary committees from UNC institutions and the N.C. Community College System have developed system-wide guidelines (Pre-Major Agreements) for community college curricula that will prepare students for selected majors at the baccalaureate level. Pre-Major Articulation Agreements for the A.A., A.S., and A.F.A. degrees that have been developed and approved to date are:

Associate in Arts (A10100)

Title	Code
Art Education	A1010A
Business Administration	A1010B
Business Education and Marketing Education	A1010C
Criminal Justice	A1010D
Education (Elementary, Middle, Special)	A1010P
English	A1010E
English Education	A1010F
Health Education	A1010G
History	A1010H
Nursing	A1010I
Physical Education	A1010J
Political Science	A1010K
Psychology	A1010L
Social Science Secondary Education	A1010M
Social Work	A1010Q
Sociology	A1010N
Speech/Communications	A1010O

Associate in Science (A10400)

Title	Code
Biology and Biology Education	A1040A
Chemistry and Chemistry Education	A1040B
Computer Science	A1040C
Engineering	A1040D
Mathematics	A1040E
Mathematics Education	A1040F

Associate in Fine Arts (A10200)

Title	Code
Art	A1020A
Music and Music Education	A1020D

Pre-Major Articulation Agreements

The following templates* have been developed by university and community college faculty as a blueprint guiding community colleges in developing programs for students who intend to major in one of the pre-majors listed above. Students who successfully complete one of these courses of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.

**There are courses listed in the following templates that are not offerred at CPCC; however, CPCC does offer the minimum course requirement for each pre-major listed in this catalog.*

Pre-Major Associate in Fine Arts Articulation Agreement: Art (A1020A)

GENERAL EDUCATION CORE (28 SHC) * The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC)

Humanities/Fine Arts (6 SHC**) Select **two** courses from **two** of the followng discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. **One course must be a literature course.**

Social/Behavioral Sciences (9 SHC) Select **three** courses from **three** of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. **One course must be a history course.**

Natural Sciences/Mathematics (7 SHC)
Natural Sciences (4 SHC): Select one course, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (3 SHC): Select one course in introductory mathematics (college algebra, trigonometry, calculus, etc.)

OTHER REQUIRED HOURS (36-37 SHC)* Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience may be included up to 1 SHC for career exploration. If a two- or three-dimensional studio course is to transfer as a pre-major course, it must have ART 121 or ART 122 respectively as a prerequisite.

The following courses are required (15 SHC):
ART 114 Art History Survey I (3 SHC)
ART 115 Art History Survey II (3 SHC)
ART 121 Design I (3 SHC)
ART 122 Design II (3 SHC)
ART 131 Drawing I (3 SHC)

ELECTIVES (21 SHC from the following):
ART 116 Survey of American Art (3 SHC)
ART 117 Non-Western Art History (3 SHC)
ART 132 Drawing II (3 SHC)
ART 135 Figure Drawing I (3 SHC)
ART 171 Computer Art I (3 SHC)
ART 222 Wood Design I (3 SHC)
ART 223 Wood Design II (3 SHC)
ART 231 Printmaking I (3 SHC)
ART 232 Printmaking II (3 SHC)
ART 235 Figure Drawing II (3 SHC)
ART 240 Painting I (3 SHC)
ART 241 Painting II (3 SHC)
ART 245 Metals I (3 SHC) *or*
ART 246 Metals II (3 SHC) *or*
ART 247 Jewelry I (3 SHC)
ART 248 Jewelry II (3 SHC)
ART 250 Surface Design: Textiles (3 SHC)
ART 251 Weaving I (3 SHC)
ART 252 Weaving II (3 SHC)
ART 261 Photography I (3 SHC)
ART 262 Photography II (3 SHC)
ART 263 Color Photography (3 SHC)
ART 271 Computer Art II (3 SHC)
ART 281 Sculpture I (3 SHC)
ART 282 Sculpture II (3 SHC)
ART 283 Ceramics I (3 SHC)
ART 284 Ceramics II (3 SHC)
ART 289 Museum Study (3 SHC)
Studio art courses must meet the following criteria:
• 6 contact hours for each 3 credit studio class
• All two-dimensional studio art classes, except ART 131 Drawing I, must require a prerequisite of ART 121 Design I
• All three-dimensional studio art classes must require a prerequisite of ART 122 Design II

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.

Application to a University
Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Validation of the level of achievement in studio course work may be determined through portfolio review at the receiving institution. Upon successful completion of the associate in fine arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Art will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, WCU, WSSU.

Admission to the Major
Grade point average requirements vary and admission is competitive across the several programs in Art. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and PRAXIS II.

Articulation Agreement: Art Education (A1010A)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

The following courses are required (6 SHC)
ART 114 Art History Survey I (3 SHC)
ART 115 Art History Survey II (3 SHC)

One additional course from the following discipline areas is required: music, drama, dance, foreign languages, interdisciplinary humanities, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from the following discipline areas

are required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.
One course must be in introductory mathematics (college algebra. trigonometry, calculus, etc.).
The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (9 SHC):
ART 121 Design I (3SHC)
ART 122 Design II (3 SHC)
ART 131 Drawing I (3 SHC)
11 additional hours of approved college transfer courses are required.
To satisfy this requirement, two of the following courses are recommended.
ART 132 Drawing II (3 SHC)
ART 171 Computer Art I (3 SHC)
ART 231 Printmaking I (3 SHC)
ART 240 Painting I (3 SHC)
ART 283 Ceramics I (3 SHC)
ART 247 Jewelry I (3 SHC) or ART 245 Metals I (3 SHC)
ART 251 Weaving I (3 SHC) or ART 250 Surface Design: Textiles (3 SHC)
ART 261 Photography I (3 SHC)
(ART 131 is a prerequisite for the following courses.)
ART 135 Fig Drw I (3 SHC) or ART 222 Wd Design I (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University
Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Art Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-A, UNC-C, UNC-G, UNC-P, WCU, WSSU.

Admission to the Major
Grade point average requirements vary and admission is competitive across the several programs in Art Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Science Articulation Agreement: Biology and Biology Education (A1040A)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required.
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
The following chemistry **sequence is required:**
CHM 151 General Chemistry I (4 SHC)
CHM 152 General Chemistry II (4 SHC)

Mathematics (6 SHC): Two courses are required.
MAT 171 (or higher) Precalculus Algebra (3 SHC)
The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following course is required (4 SHC):
BIO 111 General Biology
Two of the following courses are required (8 SHC):
BIO 112 General Biology II (4 SHC)
BIO 120 Introductory Botany (4 SHC)
BIO 130 Introductory Zoology (4 SHC)
8 additional hours of approved college transfer courses are required.
One of the following sequences of courses is recommended:
CHM 251 and 252 Organic Chemistry I & II (8 SHC) or
PHY 151 and 152 College Physics I & II (8 SHC) or
#PHY 251 and 252 General Physics I & II (8 SHC)

#Only students who place into MAT 272 (Calculus II) may choose PHY 251 and 252.

TOTAL SEMESTER HOURS CREDITS (SHC) IN PROGRAM: 64-65

* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

** 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirements.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree:

Biology: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU

Biology Education, Secondary Education: ASU, ECSU, FSU, NCA&T, NCCU, UNC-A*, UNC-P, UNC-W, WCU

* Certification for Grades (K-4); Middle Grades (4-6); Grades (6-9); Secondary Level.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Biology and Biology Education. Admission to teach licensure programs require satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Business Administration (A1010B)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

The following courses are recommended:
POL 120 American Government (3 SHC)
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14-16 SHC)

Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6-8 SHC):
The following courses are required:
choose one:
MAT 161 College Algebra (3 SHC) or
MAT 171 Precalculus Algebra (3 SHC) or
MAT 175 Precalculus (4 SHC)
choose one:
MAT 263 Brief Calculus (3 SHC) or
MAT 271 Calculus I (4 SHC)

OTHER REQUIRED HOURS (20 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (17 SHC):
ACC 120 Principles of Accounting I (4 SHC)
ACC 121 Principles of Accounting II (4 SHC)
CIS 110 Introduction to Computers (3 SHC)
ECO 251 Principles of Microeconomics (3SHC)
ECO 252 Principles of Macroeconomics (3 SHC)
One of the following is required (3 SHC):
BUS 228 Business Statistics (3 SHC) or
MAT 155 Statistical Analysis (3 SHC)
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Business Administration will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Business Administration.

Pre-Major Associate in Arts Articulation Agreement: Business Education and Marketing Education (A1010C)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are

required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, drama, dance, foreign languages, interdisciplinary humanities, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required:
ECO 251 Principles of Microeconomics (3SHC)

Two courses from the following discipline areas are required, to include at least one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology

The following courses are recommended:
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14-15 SHC)

Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6-7 SHC): Two courses are required.

The following course is required:
CIS 110 Introduction to Computers (3 SHC)
One of the following courses is required:
MAT 161 College Algebra (3 SHC) or
MAT 171 Precalculus Algebra (3 SHC) or
MAT 175 Precalculus (4 SHC)

OTHER REQUIRED HOURS (19-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (7 SHC):
ACC 120 Principles of Accounting I (4 SHC)
ECO 252 Principles of Macroeconomics (3 SHC)
One of the following courses is required (3 SHC)
CIS 115 Introduction to Programming & Logic (3 SHC)
CSC 134 C++ Programming (3 SHC) or other programming language

9-10 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.

Three of the following courses are recommended (select three):
ACC 121 Principles of Accounting II (4 SHC)
BUS 110 Introduction to Business (3 SHC)
Bus 115 Business Law I (3 SHC)
BUS 228 Bus Stat (3 SHC) or MAT 155 Stat Analysis (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree:

Business Education: ASU, ECU, ECSU, FSU, NCA&T, NCSU, UNC-G, WCU

Marketing Education: ASU, ECU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-C, UNC-G, UNC-W, WCU

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Business Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Science Articulation Agreement: Chemistry and Chemistry Education (A1040B)

Students entering the Pre-Chemistry Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

The following course is recommended:
PSY 150 General Psychology (3 SHC)

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics **sequence is required:**
PHY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following courses **are required:**
MAT 271 Calculus I (4 SHC)
MAT 272 Calculus II (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (16 SHC):
CHM 151 General Chemistry I (4 SHC)
CHM 152 General Chemistry II (4 SHC)
CHM 251 Organic Chemistry I (4 SHC)
CHM 252 Organic Chemistry II (4 SHC)
2-3 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.
The following course is recommended:
#MAT 273 Calculus III (4 SHC)
#Only students who place into MAT 272 (Calculus II) may choose MAT 273.
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree:
Chemistry: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU
Chemistry Education, Secondary Education: ASU, ECSU, NCA&T, NCCU, UNC-A*, UNC-W

*Certification for Grades K-4; Middle Grades (4-6); Grades 6-9; Secondary Level.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Chemistry and Chemistry Education. Admission to teach licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Science Articulation Agreement: Computer Science (A1040C)

Students entering the Computer Science Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
(ENG 113 is recommended to satisfy this requirement.)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics **sequence is required**:
PHY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following courses **are required:**
MAT 271 Calculus I (4 SHC)
MAT 272 Calculus II (4 SHC)

Other Required Hours (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (11 SHC):
CSC 120 Computing Fundamentals I (4 SHC)
CSC 130 Computing Fundamentals II (4 SHC)
MAT 167 Discrete Mathematics (3 SHC)
7-8 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.
The following course is recommended:
CSC 220 Machine Implem of Algor (4 SHC)
BIO 111 Gen Biol I (4 SHC) or CHM 151 Gen Chem I (4 SHC) or MAT 280 Lin Alg (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature

requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Computer Science will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Computer Science. Computer Science is a rapidly developing field; curriculum requirements change frequently and vary among the programs and tracks at different universities. In choosing courses to meet both general education core requirements and other required hours, students should seek advice based on the program and track into which they desire to transfer. *Students must be proficient in the programming language(s) and programming environment(s) used at the receiving institution.*

Pre-Major Associate in Arts Articulation Agreement: Criminal Justice (A1010D)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following courses are required:

POL 120 American Government (3 SHC)
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompany laboratory work, are required.

Mathematics (6 SHC):

One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.).

The following course is recommended to satisfy the second mathematics requirement:

MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (9 SHC):

CJC 111 Introduction to Criminal Justice (3 SHC)
CJC 121 Law Enforcement Operations (3 SHC)
CJC 141 Corrections (3 SHC)

11 additional hours of approved college transfer courses are required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

*Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Criminal Justice will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCCU, NCSU, UNC-C, UNC-P, UNC-W, WCU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Criminal Justice.

Pre-Major Associate in Science Articulation Agreement: Engineering (A1040D)

Students entering the Pre-Engineering Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
(ENG 113 is recommended to satisfy this requirement.)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course. One of the following is required to satisfy the literature requirement: ENG 231, 232, 241, 242, 251 or 252.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

The following courses are recommended:

FRE, GER, or SPA 111 Elementary Foreign Language I (3 SHC)

FRE, GER, or SPA 112 Elementary Foreign Language II (3 SHC)

HUM 110 Technology and Society (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One of the following history sequences is required:

HIS 111 & 112 World Civilizations I & II (6 SHC) or

HIS 131 & 132 American History I & II (6 SHC)

(HIS 111 & 112 is recommended to satisfy the history sequence requirement.)

One of the following courses is required:

ECO 251 Principles of Microeconomics (3 SHC) or

ECO 252 Principles of Macroeconomics (3 SHC)

One additional course from one of the following discipline areas is required: anthropology, geography, political science, psychology, and sociology.

Natural Sciences/Mathematics (16 SHC)

Natural Sciences (8 SHC):

The following physics **sequence is required:**

PHY 251 General Physics I (4 SHC)

PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):

Two mathematics courses **are required.**

MAT 271 Calculus I (4 SHC)

MAT 272 Calculus II (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (11 SHC):

CHM 151 General Chemistry I (4 SHC)

MAT 273 Calculus III (4 SHC)

MAT 285 Differential Equations (3 SHC)

One of the following courses is required (3 SHC)

CSC 134 C++ Programming (3 SHC) or

CSC 136 FORTRAN Programming (3 SHC)

One of the following courses is required (3-4 SHC). Students should select one of the following courses to complete the program of study, depending on the engineering major selected and the university to which the student plans to transfer:

CHM 152 General Chemistry II (4 SHC)

DFT 170 Engineering Graphics (3 SHC)

** EGR 220 Engineering Statics (3 SHC)

** EGR 225 Engineering Dynamics (3 SHC)

** Colleges currently approved by the Joint Committee on College Transfer Subcommittee on Engineering Transfer to offer statics and dynamics courses may continue to do so, pending approval of the revised semester courses.

A total of 64 SHC of transferable courses is required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Engineering will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: NCA&T, NCSU, UNC-C

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Engineering. In choosing courses to meet both general education core requirements and other required hours, students should seek advice based on the program and track into which they desire to transfer.

Pre-Major Associate in Arts Articulation Agreement: Elementary Education, Middle Grades Education, and Special Education (A1010P)

NOTE: Students seeking these pre-major areas and intending to transfer to UNCC need to follow the specific bi-lateral agreements between CPCC and UNCC found on page 174 of this catalog.

GENERAL EDUCATION CORE (44 SHC) *(Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required:

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research

ENG 113 Literature-Based Research

Humanities/Fine Arts (12 SHC) Four courses from three discipline areas are required.

One course must be a **literature** course. Select one course from the following (3 SHC):

ENG 131 Introduction to Literature (3 SHC) or

ENG 231 American Literature (3 SHC) or

ENG 232 American Literature II (3 SHC) or

ENG 233 Major American Writers (3 SHC)

The following course **is required** to substitute for 3 SHC of Humanities/Fine Arts:

COM 231 Public Speaking (3 SHC)

One of the following courses is required (3 SHC):

ART 111 Art Appreciation (3 SHC) or

ART 114 Art History Survey I (3 SHC) or

ART 115 Art History Survey II (3 SHC) or

MUS 110 Music Appreciation (3 SHC)

One additional course from the following discipline areas is

required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course. Select one course from the following (3 SHC):

HIS 111 World Civilizations I (3 SHC) or
HIS 112 World Civilizations II (3 SHC)
The following courses are required (6 SHC):
PSY 150 General Psychology (3 SHC)
choose one:
SOC 210 Introduction to Sociology (3 SHC) or
SOC 225 Social Diversity (3 SHC)

One additional course from the following discipline areas is required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
The following courses are required:
choose one:
BIO 110 Principles of Biology (4 SHC) or
BIO 111 General Biology I (4 SHC)
choose one:
CHM 131 Intro to Chemistry (3 SHC) and CHM 131A Intro to Chemistry Lab (1 SHC) or
CHM 151 General Chemistry I (4 SHC) or
PHY 110 Conceptual Physics (3 SHC) and PHY 110A Conceptual physics Lab (1 SHC) or
PHY 151 College Physics I (4 SHC)
Mathematics (6 SHC):
Two of the following courses are required:
CIS 110 introduction to Computers (3 SHC)
MAT 140 Survey of Mathematics (3 SHC)
MAT 161 (or higher) College Algebra (3 SHC)

Other Required Hours (20-21 SHC) * Colleges may includes courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

* At certain UNC institutions, EDU 116 may fulfill a major requirement; at a majority of institutions it will transfer only as a free elective.

* It is recommended that within the 20 semester hours of "Other Required Hours," pre-education students in Elementary Education, Middle Grades Education, and Special Education select courses that will help meet the mandated academic (second major) concentration. These courses should be selected in conjunction with the requirements at each university, since available academic (second major) concentrations and their specific requirements differ on each campus. In order to be consistent with NC licensure areas, Middle Grades Education students should select courses from up to two (2) of the following areas: Social Sciences, English, Mathematics, Sciences, (Note: UNC-Asheville students major in an academic area and the selected 20 hours should be in sync with their intended major/program.) Typically offered academic concentrations are biology, English, history, mathematics and psychology. The following recommended courses in these concentrations may be taken as general education or as "Other Required Hours."

Recommended Courses for Typical Academic Concentrations

Biology Up to 12 SHC from the following:

BIO 110 Principles of Biology or BIO 111 General Biology I and BIO 112 General Biology II;

BIO 120 Intro. Botany or BIO 130 Intro. Zoo. Or BIO 140 Environ. Bio. And BIO 140A Environ. Bio. Lab;

CHM 151 General Chemistry I
CHM 152 General l Chemistry II
English Up to 6 SHC from the following:
ENG 231 American Lit. I
ENG 232 American Lit. II
ENG 241 British Lit. I
ENG 242 British Lit. II
ENG 273 African-Amer. Lit
ENG 274 Lit. by Women
History

6 SHC from the following should be taken as general education:

HIS 111 World Civilizations I and HIS 112 World Civilizations II or

HIS 121 Western Civilization I and HIS 122 Western Civilization II

6 SHC from the following should be taken as "other required hours:"

HIS 131 American History I and HIS 132 American History II

Mathematics Up to 12 SHC from the following:

MAT 151 Stat. I, MAT 151A Statist. I Lab. Or MAT 155 Statist. Analy., MAT 155A Statist. Analy. Lab;

MAT 172 Precal. Trig., MAT172A Precal. Trig. Lab or MAT 175 Precal., MAT 175A Precalculus Lab;

MAT 271 Calculus I
MAT 272 Calculus II
Psychology Select from:
PSY 150 General Psychology
PSY 237 Social Psychology
PSY 239 Psy. Of Personality
PSY 241 Develop. Psychology
PSY 243 Child Psychology
PSY 246 Adolescent Psychology
PSY 275 Health Psychology
PSY 281 Abnormal Psychology
Total Semester Hours Credit (SHC) in Program: 64-65

* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Elementary Education, Middle Grades Education, and Special Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: Elementary Education: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-A, UNC-C, UNC-CH, UNC-G, UNC-P, UNC-W, WCU, and WSSU.

Middle Grades Education: ASU, ECU, ECSU, FSU, NCCU, NCSU, UNC-A, UNC-C, UNC-CH, UNC-G, UNC-P, UNC-W, WCU, and WSSU.

Special Education: ASU, ECU, ECSU, NCA&T, UNC-C, UNC-CH, UNC-P, UNC-W, WCU, and WSSU.

Admission to the Major

Grade Point average requirements vary and admission is competitive across the several programs in Elementary Education, Middle Grades Education, and Special Education. Minimum statewide requirements are:

1. Minimum 2.5 grade point average on a 4.0 scale.
2. Satisfactory passing scores as established by the State

Board of Education on PRAXIS–PPST-Reading; PPST-Writing; PPST-Math.

Receiving institutions may have additional requirements, prerequisites, and/or proficiencies. Since these vary at receiving institutions, students should review the admission to teach education requirements for the institution(s) they anticipate attending.

Pre-Major Associate in Arts Articulation Agreement: English (A1010E)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:

ENG 112 Argument-Based Research or
ENG 113 Literature-Based Research

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course. Select one course from the following (3 SHC):

ENG 231 American Literature I (3 SHC) or
ENG 232 American Literature II (3 SHC) or
ENG 241 British Literature I (3 SHC) or
ENG 242 British Literature II (3 SHC) or

Three additional courses from the following discipline areas are required: music art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

One of the following foreign language sequences is recommended:

FRE 111 and 112 Elementary French I & I (6 SHC) or
GER 111 and 112 Elementary German I & II (6 SHC) or
SPA 111 and 112 Elementary Spanish I & II (6 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from one of the following discipline areas is required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).

The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

Other Required Hours (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

One of the following courses is required (3 SHC):

ENG 231 American Literature I (3 SHC)
ENG 232 American Literature II (3 SHC) or
ENG 241 British Literature I (3 SHC) or
ENG 242 British Literature II (3 SHC) or

17 additional hours of approved college transfer courses are required.

One of the following courses is recommended:

HIS 111 World Civilizations I (3SHC) or
HIS 112 World Civilizations II (3 SHC) or
HIS 131 American History I (3 SHC) or
HIS 132 American History II (3 SHC)

An intermediate foreign language sequence is recommended:

FRE 211 and 212 Intermediate French I & II (6 SHC) or
GER 211 and 212 Intermediate German I & II (6 SHC) or
SPA 211 and 212 Intermediate Spanish I & II (6 SHC)

A total of 64 SHC of transferable courses is required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for English will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in English.

Pre-Major Associate in Arts Articulation Agreement: English Education (A1010F)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:

ENG 112 Argument-Based Research or
ENG 113 Literature-Based Research

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

One of the following fine arts courses is recommended:
ART 111 Art Appreciation (3 SHC) or
DAN 110 Dance Appreciation (3 SHC) or
DRA 111 Theatre Appreciation (3 SHC) or
HUM 160 Introduction to Film (3 SHC) or
MUS 110 Music Appreciation (3 SHC)

One of the following foreign language sequences is recommended:
FRE 111 and 112 Elementary French I & II (6 SHC) or
GER 111 and 112 Elementary German I & II (6 SHC) or
SPA 111 and 112 Elementary Spanish I & II (6 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required (3 SHC):
PSY 150 General Psychology (3 SHC)

Two additional courses from one of the following discipline areas is required, to include one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology.

One of the following courses is recommended:
HIS 111 World Civilizations I (3 SHC) or
HIS 112 World Civilizations II (3 SHC) or
HIS 121 Western Civilization I (3 SHC) or
HIS 122 Western Civilization II (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two mathematics courses are required.

One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).

The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following course is required (4 SHC):
EDU 116* Introduction to Education (4 SHC)

* At certain UNC institutions, EDU 116 may fulfill a major requirement; at a majority of institutions it will transfer only as a free elective.

16 additional hours of approved college transfer courses are required.

The following course is recommended:
COM 231 Public Speaking (3 SHC)

An intermediate foreign language sequence is recommended:
FRE 211 and 212 Intermediate French I & II (6 SHC) or
GER 211 and 212 Intermediate German I & II (6 SHC) or
SPA 211 and 212 Intermediate Spanish I & II (6 SHC)

One of the following courses with multicultural or gender emphasis is recommended:
ENG 273 African-American Literature (3 SHC) or
ENG 274 Literature by Women (3 SHC) or
HIS 221 African-American History (3 SHC) or
SOC 225 Social Diversity (3 SCH) or

Two additional 200-level survey courses in literature are recommended.

A total of 64 SHC of transferable courses is required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for English Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in English Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Health Education (A1010G)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

The following course is recommended to substitute for 3 SHC of Humanities/Fine Arts:
COM 231 Public Speaking (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required:
PSY 150 General Psychology (3 SHC)

Two additional courses from one of the following discipline areas is required, to include one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
One of the following sequences of courses is required:
CHM 151 General Chemistry I (4 SHC) and
CHM 152 General Chemistry II (4 SHC)
or
BIO 111 General Biology I (4 SHC) and
BIO 112 General Biology II (4 SHC)

Mathematics (6 SHC):
The following courses **are required**:
CIS 110 Introduction to Computers (3 SHC)
MAT 161 or higher College Algebra (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (8 SHC):
HEA 110 Personal Health/Wellness (3 SHC)
HEA 112 First Aid and CPR (2 SHC)
HEA 120 Community Health (3 SHC)
The following course sequence is required (8 SHC):
BIO 168 Anatomy and Physiology I (4 SHC) and
BIO 169 Anatomy and Physiology II (4 SHC)
The following course is required (3 SHC):
MAT 155 Statistical Analysis (3 SHC)
One additional hour of approved college transfer course work is required to total 64 SHC of transferable courses.
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University
Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Health Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, FSU, NCCU, UNC-C, UNC-G, UNC-P

Admission to the Major
Grade point average requirements vary and admission is competitive across the several programs in Health Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: History (A1010H)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting
(One of the following courses is recommended to satisfy the second composition requirement:
ENG 112 Argument-Based Research (3 SHC) or ENG 113 Literature-Based Research 3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following history sequence is recommended:
HIS 111 World Civilizations I (3 SHC) and
HIS 112 World Civilizations II (3 SHC)
Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompany laboratory work, are required.

Mathematics (6 SHC): Two courses are required.
MAT 161 (or higher) College Algebra (3 SHC)
The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
20 additional hours of approved college transfer courses are required.
The following courses are recommended:
HIS 131 American History I (3 SHC)
HIS 132 American History II (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University
Admission application deadlines vary; students must meet the

deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for History will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in History.

Pre-Major Associate in Science Articulation Agreement: Mathematics (A1040E)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required.

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics sequence is required:
PSY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following mathematics courses are required:
MAT 175 Precalculus I (4 SHC)
MAT 271 Calculus I (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (8 SHC):
MAT 272 Calculus II (4 SHC)
MAT 273 Calculus III (4 SHC)
One of the following courses is required (3 SHC):
MAT 280 Linear Algebra (3 SHC) or
MAT 285 Differential Equations (3 SHC)

7 additional hours of approved college transfer courses are required.

One of the following courses is recommended:
CSC 134 C++ Programming (3 SHC) or
CSC 136 FORTRAN Programming (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

** 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Mathematics will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Mathematics.

Pre-Major Associate in Science Articulation Agreement: Mathematics Education (A1040F)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following courses are required (6 SHC):
PSY 150 General Psychology (3 SHC)
PSY 241 Developmental Psychology (3 SHC)
One additional course from the following discipline areas are

required: anthropology, economics, geography, political science and sociology.

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics sequence is required:
PHY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following mathematics courses are required:
MAT 175 Precalculus I (4 SHC)
MAT 271 Calculus I (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (18 SHC):
CSC 134 C++ Programming (3 SHC)
EDU 116* Introduction to Education (4 SHC)
* At certain UNC institutions, EDU 116 may fulfill a major requirement; at a majority of institutions it will transfer only as a free elective.
MAT 272 Calculus II (4 SHC)
MAT 273 Calculus III (4 SHC)
MAT 280 Linear Algebra (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University
Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Mathematics Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major
Grade point average requirements vary and admission is competitive across the several programs in Mathematics Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Fine Arts Articulation Agreement: Music and Music Education (A1020D)

GENERAL EDUCATION CORE (28 SHC) * The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC)
Humanities/Fine Arts (6 SHC**) Select **two** courses from **two** of the followng discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. **One course must be a literature course.**

Social/Behavioral Sciences (9 SHC) Select **three** courses from **three** of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. **One course must be a history course.**

Natural Sciences/Mathematics (7 SHC)
Natural Sciences (4 SHC): Select one course, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (3 SHC): Select one course in introductory mathematics (college algebra, trigonometry, calculus, etc.)

OTHER REQUIRED HOURS (36-37 SHC)* Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience may be included up to 1 SHC for career exploration
The following courses are required (26 SHC):
MUS 121 Music Theory I (4 SHC)
MUS 122 Music Theory II (4 SHC)
MUS 151 Class Music I (1 SHC)
MUS 152 Class Music II (1 SHC)
MUS 221 Music Theory III (4 SHC)
MUS 222 Music Theory IV (4 SHC)
MUS 161 Applied Music I (2 SHC)
MUS 162 Applied Music II (2 SHC)
MUS 261 Applied Music III (2 SHC)
MUS 262 Applied Music IV (2 SHC)
Four of the following courses are required (4 SHC):
MUS 131 Chorus I (1 SHC)
MUS 132 Chorus II (1 SHC)
MUS 133 Band I (1 SHC)
MUS 134 Band II (1 SHC)
MUS 135 Jazz Ensemble I (1 SHC)
MUS 136 Jazz Ensemble II (1 SHC)
MUS 137 Orchestra I (1 SHC)
MUS 138 Orchestra II (1 SHC)
MUS 141 Ensemble I (1 SHC)
MUS 142 Ensemble II (1 SHC)
MUS 231 Chorus III (1 SHC)
MUS 232 Chorus IV (1 SHC)
MUS 233 Band III (1 SHC)
MUS 234 Band IV (1 SHC)
MUS 235 Jazz Ensemble III (1 SHC)
MUS 236 Jazz Ensemble IV (1 SHC)
MUS 237 Orchestra III (1 SHC)
MUS 238 Orchestra IV (1 SHC)
MUS 241 Ensemble III (1 SHC)
MUS 242 Ensemble IV (1 SHC)
MUS 253 Big Band (1 SHC)

ELECTIVES (6 - 7 SHC from other MUS courses)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in fine arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Music and Music Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSA, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Music and Music Education. Validation of level of achievement in Theory, Class Music, and Applied Music is required for acceptance into four-year programs in accordance with NASM requirements for admission of transfer students. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and PRAXIS II.

Pre-Major Associate in Arts Articulation Agreement: Nursing (A1010I)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following courses are required (9 SHC):
PSY 150 General Psychology (3 SHC)
PSY 241 Developmental Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

One of the following chemistry sequences is required:

CHM 131, 131A, and 132 Introduction to Chemistry (3 SHC), Lab (1 SHC), Organic Biochemistry (4 SHC)

or

CHM 151 and 152 General Chemistry I (4 SHC) General Chemistry II (4 SHC)

Mathematics (6 SHC):

The following courses are required (3 SHC):
MAT 161 (or higher) College Algebra (3 SHC) and
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (6 SHC):
PSY 281 Abnormal Psychology (3 SHC)
SOC 213 Sociology of the Family (3 SHC)

The following course sequence is required (8 SHC)
BIO 168 and 169 Anatomy and Physiology I (4 SHC) and II (4 SHC)

One of the following courses is required (3-4 SHC):
BIO 175 General Microbiology (3 SHC) or
BIO 275 Microbiology (4 SHC)

2-3 additional hours of approved college transfer courses are required to total 64-65 SHC of transferable courses.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Nursing will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ECU, NCA&T, NCCU, UNC-CH, UNC-C, UNC-G, UNC-W, WCU, WSSU..

Admission to the Major

Admission across the several programs in Nursing is competitive. Other professional admission requirements may be designated by individual programs. Grade point average requirements vary and admission is competitive across the several programs in Nursing.

Pre-Major Associate in Arts Articulation Agreement: Physical Education (A1010J)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting
(The following course is recommended to satisfy the second composition requirement:
ENG 112 Argument-Based Research (3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.
The following course is recommended to substitute for 3 SHC of Humanities/Fine Arts:
COM 231 Public Speaking (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following course is recommended:
PSY 150 General Psychology (3 SHC)

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.
The following sequence of courses is recommended:
BIO 111 General Biology I (4 SHC) and
BIO 112 General Biology II (4 SHC)

Mathematics (6 SHC): Two courses are required.
One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).
The following course is recommended as the introductory mathematics course:
MAT 161 College Algebra (3 SHC)
One of the following courses is recommended as the second mathematics course:
CIS 110 Introduction to Computers (3 SHC) or
MAT 151 Statistics I (3 SHC) or
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (4 SHC):
PED 110 Fit and Well for Life (2 SHC)
(2 SHC of PED electives)
16 additional hours of approved college transfer courses are required. Pre-education majors should select additional courses from Humanities/Fine Arts, Social/Behavioral Sciences, Natural Sciences/Mathematics, and electives that meet the requirements of the academic concentration, based on the requirements of the receiving institution.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University
Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Physical Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-CH, UNC-G, UNC-P, UNC-W, WCU, WSSU.
Admission to the Major
Grade point average requirements vary and admission is competitive across the several programs in Physical Education. Admission to teach licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Political Science (A1010K)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.
English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.
One of the following course sequences is recommended:
FRE 111 and 112 Elementary French I & II (6 SHC) or
GER 111 and 112 Elementary German I & II (6 SHC) or
SPA 111 and 112 Elementary Spanish I & II (6 SHC)
One of the following courses is recommended to substitute for 3 SHC or Humanities/Fine Arts:
COM 110 Introduction to Communication (3 SHC) or
COM 231 Public Speaking (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following courses are recommended:
PSY 150 General Psychology (3 SHC)
GEO 111 World Regional Geography (3 SHC)
One of the following courses is recommended:
SOC 210 Introduction to Sociology (3 SHC) or
SOC 220 Social Problems (3 SHC) or

SOC 225 Social Diversity (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).

The following course is recommended to meet the second mathematics requirement:

CIS 110 Introduction to Computers (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following course is required (3 SHC):

POL 120 American Government (3 SHC)

17 additional hours of approved college transfer courses are required.

The following courses are recommended:

POL 210 Comparative Government (3 SHC)

POL 220 International Relations (3 SHC)

One of the following is recommended:

ECO 151 Survey of Economics (3 SHC) or

ECO 251 Principles of Microeconomics (3 SHC) or

ECO 252 Principles of Macroeconomics (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Political Science will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Political Science.

Pre-Major Associate in Arts Articulation Agreement: Psychology (A1010L)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research

ENG 113 Literature-Based Research

ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required (3 SHC):

PSY 150 General Psychology (3 SHC)

Two additional courses from the following discipline areas are required, to include at least one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

One of the following biology courses **is required** (4 SHC):

BIO 110 Principles of Biology (4 SHC) or

BIO 111 General Biology I (4 SHC)

Mathematics (6 SHC): Two courses are required.

MAT 161 (or higher) College Algebra (3 SHC)

The second course may be a high level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

20 additional hours of approved college transfer courses are required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Psychology will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Psychology.

Pre-Major Associate in Arts Articulation Agreement: Social Science Secondary Education (A1010M)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

(One of the following courses is recommended to satisfy the second composition requirement:

ENG 112 Argument-Based Research (3 SHC) or ENG 113 Literature-Based Research (3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

The following courses are required (6 SHC):
POL 120 American Government (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

The following course sequence is required (6 SHC):

HIS 111 and 112 World Civilizations I (3 SHC) and II (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.)

The second course may be a high level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (9 SHC):
GEO 111 World Regional Geography (3 SHC)
HIS 131 American History I (3 SHC)
HIS 132 American History II (3 SHC)

One of the following is required (3 SHC or 6 SHC)

ECO 151 Survey of Economics (3 SHC)
or
ECO 251 Principles of Microeconomics (3 SHC) and
ECO 252 Principles of Macroeconomics (3 SHC)

5-8 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Social Science Secondary Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, FSU, NCSU, UNC-CH, WCU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Social Science Secondary Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Social Work (A1010Q)

GENERAL EDUCATION CORE (44 SHC) *(Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required:

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC**) Four courses from three discipline areas are required

One course must be a **literature** course

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following courses are required (9 SHC):
POL 120 American Government (3 SHC)
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from he biological and physical sciences disciplines, include accompanying laboratory work, are required.
The following courses are recommended:
BIO 110 Principles of Biology (4 SHC) or
BIO 111 General Biology I (4 SHC) and BIO 112 General Biology II (4 SHC)
Mathematics (6 SHC):
The following course is required (3 SHC):
choose one:
MAT 161 College Algebra (3 SHC) or
MAT 171 (or higher) Precalculus Algebra (3 SHC)
The following course is recommended to satisfy the second mathematics requirement:
CIS 110 Introduction to Computers (3 SHC)
Other Required Hours (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
*20-21 additional hours of approved transfer courses are required:
The following courses are recommended:
ANT 210 General Anthropology (3 SHC)
ECO 151 Survey of Economics (3 SHC)
ECO 251 Principles of Microeconomics (3 SHC)
ECO 252 Principles of Macroeconomics (3 SHC)
HIS 112 World Civilizations II (3 SHC)
HIS 132 American History II (3 SHC)
PSY 241 Developmental Psychology (3 SHC)
PSY 281 Abnormal Psychology (3 SHC)
SPA 111 Elementary Spanish I (3 SHC)
SPA 112 Elementary Spanish II (3 SHC)
Total Semester Hours Credit (SHC) in Program: 64-65
* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
** 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Social Work will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, NCA&T,NCCU, NCSU, UNC-C, UNC-G, UNC-P, UNC-W, WCU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Social Work.

Pre-Major Associate in Arts Articulation Agreement: Sociology (A1010N)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting
(The following course is recommended: ENG 112 Argument-Based Research (3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
The following course is required (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)
One of the following courses is required (3 SHC):
SOC 213 Sociology of the Family (3 SHC) or
SOC 220 Social Problems (3 SHC) or
SOC 225 Social Diversity (3 SHC) or
One course from the following discipline areas is required: anthropology, economics, geography, political science, and psychology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.
One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.)
The following course is recommended to meet the second mathematics requirement:
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
20 additional hours of approved college transfer courses are required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Sociology will be eligible to be considered for

admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Sociology.

Pre-Major Associate in Arts Articulation Agreement: Speech/ Communication (A1010O)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

The following course is required to substitute for 3 SHC in Humanities/Fine Arts:

COM 110 Introduction to Communication (3 SHC)

Two additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

The following courses are recommended:

DRA 122 Oral Interpretation (3 SHC)
HUM 160 Introduction to Film (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required (3 SHC)

PSY 150 General Psychology (3 SHC)

Two courses from the following discipline areas are required, to include at least one additional discipline; anthropology, economics, geography, history, political science, psychology, and sociology.

The following courses are recommended:

SOC 210 Intro to Sociology (3 SHC) or SOC 225 Social Diversity (3 SHC)

ANT 210 General Anthrop (3 SHC) or ANT 220 Cultural Anthrop (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.)

The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

The following course is recommended to meet the second mathematics requirement:

CIS 110 Introduction to Computers (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (6 SHC):

COM 120 Interpersonal Communication (3 SHC)
COM 231 Public Speaking (3 SHC)

14 additional hours of approved college transfer courses are required.

The following courses are recommended:

COM 140 Intercultural Communication (3 SHC)
MAT 155 Statistical Analysis (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

*Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Speech/Communication will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, NCSU, UNC-C, UNC-G.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Speech/Communication.

Approved College Transfer Pre-Major Courses

The following are CPCC courses appearing in the Pre-Major Articulation Agreements published in this catalog.

Accounting

ACC 120 Principles of Accounting I
ACC 121 Principles of Accounting II

Art

ART 121 Design I
ART 122 Design II
ART 131 Drawing I
ART 132 Drawing II
ART 135 Figure Drawing I
ART 171 Computer Art I
ART 212 Gallery Assistantship I
ART 213 Gallery Assistantship II
ART 214 Portfolio and Resume
ART 222 Wood Design I
ART 223 Wood Design II
ART 231 Printmaking I
ART 232 Printmaking II
ART 235 Figure Drawing II
ART 240 Painting I
ART 241 Painting II

ART 242 Landscape Painting
ART 243 Portrait Painting
ART 244 Watercolor
ART 245 Metals I
ART 246 Metals II
ART 247 Jewelry I
ART 248 Jewelry II
ART 250 Surface Design: Textiles
ART 251 Weaving I
ART 252 Weaving II
ART 260 Photography Appreciation
ART 261 Photography I
ART 262 Photography II
ART 263 Color Photography
ART 271 Computer Art II
ART 281 Sculpture I
ART 282 Sculpture II
ART 283 Ceramics I
ART 284 Ceramics II
ART 285 Ceramics III
ART 286 Ceramics IV
ART 288 Studio
ART 289 Museum Study

Biology
BIO 168 Anatomy and Physiology I
BIO 169 Anatomy and Physiology II
BIO 275 Microbiology

Business
BUS 110 Introduction to business
BUS 115 Business Law I
BUS 228 Business Statistics

Chemistry
CHM 251 Organic Chemistry I
CHM 252 Organic Chemistry II

Communications
COM 140 Intercultural Communication

Computer Science
CSC 120 Computing Fundamentals I
CSC 130 Computing Fundamentals II
CSC 134 C++ Programming
CSC 136 FORTRAN Programming
CSC 220 Machine Implem of Algor

Criminal Justice
CJC 111 Introduction to Criminal Justice
CJC 121 Criminology
CJC 141 Corrections

Drafting
DFT 170 Engineering Graphics

Education
EDU 116 Introduction to Education

Engineering
EGR 220 Engineering Statics
EGR 225 Engineering Dynamics

English
ENG 273 African-American Literature
ENG 274 Literature by Women

Health
HEA 110 Personal Health/Wellness
HEA 112 First Aid & CPR
HEA 120 Community Health

History
HIS 221 African-American History

Mathematics
MAT 167 Discrete Mathematics
MAT 280 Linear Algebra
MAT 285 Differential Equations

Music
MUS 111 Fundamentals of Music
MUS 121 Music Theory I
MUS 122 Music Theory II
MUS 123 Music Composition
MUS 131 Chorus I
MUS 132 Chorus II
MUS 133 Band I
MUS 134 Band II
MUS 135 Jazz Ensemble I
MUS 136 Jazz Ensemble II
MUS 137 Orchestra I
MUS 138 Orchestra II
MUS 141 Ensemble I
MUS 142 Ensemble II
MUS 151 Class Music I
MUS 152 Class Music II
MUS 161 Applied Music I
MUS 162 Applied Music II
MUS 170 Business of Music
MUS 175 Recording Techniques I
MUS 176 Recording Techniques II
MUS 210 History of Rock Music
MUS 214 Electronic Music I
MUS 215 Electronic Music II
MUS 217 Elementary Conducting
MUS 221 Music Theory III
MUS 222 Music Theory IV
MUS 231 Chorus III
MUS 232 Chorus IV
MUS 233 Band III
MUS 234 Band IV
MUS 235 Jazz Ensemble III
MUS 236 Jazz Ensemble IV
MUS 237 Orchestra III
MUS 238 Orchestra IV
MUS 241 Ensemble III
MUS 242 Ensemble IV
MUS 251 Class Music III
MUS 252 Class Music IV
MUS 253 Big Band
MUS 261 Applied Music III
MUS 262 Applied Music IV
MUS 265 Piano Pedagogy
MUS 271 Music History I
MUS 272 Music History II

Physical Education
PED 110 Fit and Well For Life
PED 111 Physical Fitness I
PED 112 Physical Fitness II
PED 113 Aerobics I
PED 114 Aerobics II
PED 115 Step Aerobics I
PED 117 Weight Training I
PED 118 Weight Training II
PED 122 Yoga I
PED 123 Yoga II
PED 125 Self-Defense Beginning
PED 126 Self-Defense intermediate
PED 128 Golf - Beginning
PED 129 Golf - Intermediate
PED 130 Tennis - Beginning
PED 131 Tennis - Intermediate
PED 135 Fencing - Beginning
PED 136 Fencing - Intermediate
PED 137 Badminton

PED 139 Bowling - Beginning
PED 142 Lifetime Sports
PED 143 Volleyball - Beginning
PED 152 Swimming - Beginning
PED 153 Swimming - Intermediate
PED 154 Swimming for Fitness
PED 155 Water Aerobics
PED 160 Canoeing - Basic
PED 161 Canoeing - Rivers
PED 163 Kayaking - Basic
PED 164 Kayaking - Whitewater
PED 169 Orienteering
PED 170 Backpacking
PED 173 Rock Climbing
PED 174 Wilderness Pursuits
PED 180 Cycling
PED 181 Snow Skiing - Beginning
PED 182 Snow Skiing - Intermediate
PED 183 Folk Dancing
PED 187 Social Dance - Beginning
PED 188 Social Dance - Intermediate
PED 210 Team Sports
PED 220 Exer For Phys Challenged
PED 260 Lifeguard Training
PED 262 Water Safety Instructor

Approved CAA College Transfer Elective Courses

The following courses are CAA approved transfer electives that are not part of the General Education onPre-Major Course listings.

Astronomy
AST 251 Observational Astronomy

Biology
BIO 143 Field Biology Minicourse
BIO 145 Ecology
BIO 155 Nutrition
BIO 163 Basic Anatomy & Physiology
BIO 230 Entomology
BIO 235 Ornithology
BIO 243 Marine Biology
BIO 271 Pathophysiology
BIO 272 Cardiopulmonary Biology

Chemistry
CHM 115 Concepts in Chemistry
CHM 115A Concepts in Chemistry Laboratory
CHM 130 Gen. Org. & Biochemistry
CHM 130A Gen. Org. & Bochemistry Lab

Communications
COM 111 Voice & Diction I
COM 232 Election Rhetoric
COM 233 Persuasive Speaking
COM 251 Debate I

English
ENG 125 Creative Writing I
ENG 126 Creative Writing II
ENG 133 Introduction to the Novel
ENG 253 The Bible as Literature
ENG 271 Contemporary Literature
ENG 275 Science Fiction

French
FRE 181 French Lab 1
FRE 182 French Lab 2
FRE 221 French Conversation
FRE 281 French Lab 3
FRE 282 French Lab 4

Geography
GEO 131 Physical Geography I
GEO 132 Physical Geography II

Geology
GEL 220 Marine Geology

Physical Science
PHS 110 Basic Physical Science
PHS 140 Weather and Climate

Philosophy
PHI 230 Introduction to Logic

Physics
PHY 153 Modern Topics in Physics
PHY 253 Modern Physics

Spanish
SPA 181 Spanish Lab 1
SPA 182 Spanish Lab 2
SPA 221 Spanish Conversation
SPA 281 Spanish Lab 3
SPA 282 Spanish Lab 4

Bilateral Agreement Courses

The following courses are not part of the CAA. They are courses specifically intended for transfer to UNC-C via a bi-lateral agreement. To determine how UNC-C will view individual courses, i.e. as equivalent to specific UNC-C courses/goals or as generic electives you should go to the UNC-C website (www.UNCC.EDU/Admissions/Transfer/ccequiv.html)

Students seeking admission to another institution must contact that school to seek transfer on a course-by-course basis.

Academic Related
ACA 118 College Study Skills
ACA 120 Career Assessment

Art
ART 191 Selected Topics in Art
ART 192 Selected Topics in Art
ART 193 Selected Topics in Art
ART 196 Seminar in Art
ART 197 Seminar in Art
ART 198 Seminar in Art

Accounting
ACC 120 Intermediate Accounting I
ACC 121 Intermediate Accounting II

American Sign Language
ASL 111 Elementary American Sign Language I
ASL 112 Elementary American Sign Language II
ASL 181 American Sign Language Lab I
ASL 182 American Sign Language Lab II

Biology
BIO 170 Introductory Microbiology
BIO 191 Selected Topics in Biology
BIO 193 Selected Topics in Biology

Business
BUS 116 Business Law II
BUS 137 Principles of Management

Chemistry
CHM 121 Foundations of Chemistry
CHM 121A Foundations of Chemistry Laboratory
CHM 191 Selected Topics in Chemistry
CHM 193 Selected Topics in Chemistry
CHM 293 Selected Topics in Chemistry

Computer Science
CSC 137 Pascal Programming
CSC 230 Analysis of Algorithms

CSC 234 Advanced C++ Programming
CSC 236 Advanced Fortran
CSC 237 Advanced Pascal

Dance
DAN 121 Tap Dance I
DAN 122 Tap Dance II
DAN 124 Jazz Dance I
DAN 125 Jazz Dance II
DAN 127 Dance for Musical Theatre
DAN 128 Dance Sources I
DAN 129 Dance Sources II
DAN 130 Ballet I
DAN 131 Ballet II
DAN 132 Intermediate Ballet I
DAN 133 Intermediate Ballet II
DAN 134 Ballet Pointe Work
DAN 140 Modern Dance I
DAN 141 Modern Dance II
DAN 142 Intermediate Modern Dance I
DAN 143 Intermediate Modern Dance II
DAN 191 Selected Topics in Dance
DAN 192 Selected Topics in Dance
DAN 193 Selected Topics in Dance
DAN 196 Seminar in Dance
DAN 197 Seminar in Dance
DAN 198 Seminar in Dance
DAN 221 Advanced Modern Dance I
DAN 222 Advanced Modern Dance II
DAN 225 Choreography I
DAN 226 Choreography II
DAN 236 Advanced Ballet I
DAN 237 Advanced Ballet II
DAN 262 Dance Performance
DAN 291 Selected Topics in Dance
DAN 292 Selected Topics in Dance
DAN 293 Selected Topics in Dance
DAN 296 Seminar in Dance
DAN 297 Seminar in Dance
DAN 298 Seminar in Dance

Drama
DRA 130 Acting I
DRA 131 Acting II
DRA 135 Acting for the Camera I
DRA 136 Acting for the Camera II
DRA 140 Stagecraft I
DRA 141 Stagecraft II
DRA 142 Costuming
DRA 170 Play Production I
DRA 171 Play Production II
DRA 175 Teleplay Production I
DRA 176 Teleplay Production II
DRA 191 Selected Topics in Drama
DRA 192 Selected Topics in Drama
DRA 193 Selected Topics in Drama
DRA 230 Acting III
DRA 231 Acting IV
DRA 270 Play Production III
DRA 271 Play Production IV
DRA 275 Teleplay Production III
DRA 276 Teleplay Production IV
DRA 291 Selected Topics in Drama
DRA 292 Selected Topics in Drama
DRA 293 Selected Topics in Drama

English As A Foreign Language
EFL 111 English For Internationals I
EFL 112 English For Internationals II
EFL 181 EFL Lab I
EFL 182 EFL Lab II

English
ENG 193 Selected Topics in English

French
FRE 120 French in the Workplace

German
GER 120 German for the Workplace

Health
HEA 130 Health-Adult Sexuality
HEA 140 Health-Child Sexuality
HEA 191 Selected Topics in Health Education
HEA 192 Selected Topics in Health Education
HEA 193 Living With Health

History
HIS 193 Selected Topics in History

Humanities
HUM 230 Leadership Development

Music
MUS 191 Selected Topics in Music
MUS 192 Selected Topics in Music
MUS 193 Selected Topics in Music
MUS 196 Seminar in Music
MUS 197 Seminar in Music
MUS 198 Seminar in Music
MUS 291 Selected Topics in Music
MUS 292 Selected Topics in Music
MUS 293 Selected Topics in Music
MUS 296 Seminar in Music
MUS 297 Seminar in Music
MUS 298 Seminar in Music

Physical Education
PED 191 Selected Topics in Physical Education
PED 191B Canoeing-Whitewater
PED 191C Kung Fu-Individual Activity
PED 191D Self Protection for Women
PED 191E Yoga-Intermediate

Political Science
POL 193 Selected Topics in Political Science

Reading
RED 111 Critical Reading For College

Sociology
SOC 193 Selected Topics in Sociology

Spanish
SPA 120 Spanish For The Workplace

Associate in Fine Arts Degree (64 SHC) – A.F.A (A10200)

The Associate in Fine Arts degree is awarded for study leading toward a career in Art, Dance, or Music. **The A.F.A. degree is not included in the Comprehensive Articulation agreement.** It requires 28 semester hours of General Education, with the remaining 36-37 hours devoted to skill development in the chosen area of concentration. Transfer to a senior institution will be on a course-by-course basis along with the presentation of an art portfolio or an audition for dance or music. Students planning to transfer should contact the institution they plan to attend for specific transfer requirements.

GENERAL EDUCATION GOALS

Goal I Communications (6 or 9 SHC)*

All students must complete two ENG courses (6 SHC).

ENGLISH

ENG 111 Expository Writing
and
ENG 112 Argument-Based Research
or
ENG 113 Literature-Based Research
or
ENG 114 Professional Research and Reporting

COMMUNICATIONS

COM 110 Introduction to Communication
COM 111 Voice and Diction I
COM 112 Voice nd Diction II
COM 120 Interpersonal Communications
COM 140 Intercultural Communication
COM 231 Public Speaking
COM 232 Election Rhetoric
COM 233 Persuasive Speaking
COM 251 Debate I

Goal II Natural Sciences/Mathematical Skills (7 SHC)

Students must complete a total of 7 semester hours credit (SHC) in natural science and mathematics.

These hours must include 3 SHC of mathematics, 4 SHC of natural science.

Students must complete at least 4 SHC of laboratory science listed on pages 194 of this catalog.

Students must complete at least 3 SHC of Mathematics listed on pages 194 of this catalog.

Goal III Technology (3 SHC)

Students must complete one course from the following computer Science courses listed on page 163 of this catalog.

Goal IV Problem Solving and Critical Thinking

Problem solving and critical thinking are incorporated throughout the curriculum at Central Piedmont Community College.

Goal V Humanities and Fine Arts (6 SHC)

One communication Course (3 SHC).

COM 110 Introduction to Communication
COM 120Interpersonal Communications
COM 231 Public Speaking

Students must complete at least 3 hours of literature listed on page 162 of this catalog.

Goal VI International Awareness

International awareness is incorporated throughout the curriculum at Central Piedmont Community College.

Goal VII Social/Behavioral Sciences (9 SHC) (Self and Society)

Students must complete three courses (9 SHC) from three of the following discipline areas: anthropogy, economics, geography, history, political science, psychology, and sociology. One course must be a history course.

These courses are listed on page 163 of this catalog.

Goal VIII Health/Physical Education

Students seeking the A.F.A. degree have no Health and Physical Education requirements.

The following are specific CPCC requirements for major areas of concentration in the Associate of Fine Arts degree:

Major area of concentration: ART

Students **are required** to take:
ART 114, 115 Art History Survey I, II
ART 121, 122 Design I, II
ART 131, Drawing I
Studio art courses must meet the following criteria:
6 contact hours for each 3 credit studio class
All two-dimensional studio art classes, except ART 131 Drawing I, require a prerequisite of ART 121 Design I
All three dimensional studio art classes require a prerequisite of ART 122 Design II.

Major area of concentration: DANCE

Dancers **are required** to audition for acceptance into the Dance Program and to take selected courses.

Students **are required** to take:
DAN 133 Intermediate Ballet II
DAN 134 Ballet Pointe Work
DAN 236, 237 Advanced Ballet I, II
DAN 142, 143 Intermediate Modern Dance I, II
DAN 221, 222 Advanced Modern Dance I, II
DAN 225 Choreography
DAN 264 Dance Production (Twice)
DAN 211, 212 Dance History I, II
MUS 110 Music Appreciation
BIO 168** Anatomy and Physiology I
**Meets General Education Requirement for Natural Science.

Major area of concentration: MUSIC

Students in this area **are required** to take:
MUS 151, 152 Class Piano
MUS 121, 122, 221, 222 Music Theory I, II, III, IV
MUS 271 Music History I
MUS 161, 162, 261, 262 Applied Music I, II, III, IV
And
Any four of the following 1 Semester Hour Credit courses:
MUS 131, 132, 231, 232 Chorus I, II, III, IV
MUS 133, 134, 233, 234 Band I, II, III, IV
MUS 135, 136, 235, 236 Jazz Ensemble I, II, III, IV
MUS 137, 138, 237, 238 Orchestra I, II, III, IV
MUS 141, 142, 241, 242 Ensemble I, II, III, IV
MUS 253 Big Band

Electives:

See your faculty advisor to select electives appropriate for your area of study.

ASSOCIATE DEGREE CHECK SHEET

Name:_____SS#: _____

Advisor:_____Office Location:_____Phone#:_____

Intended Degree: (Circle) A.A. A.S. A.F.A. A.G.E. NONE

Comprehensive Articulation Agreement (CAA) Participant: (Circle) Yes No

Pre-Major/Concentration:_____

Transfer Credits Accepted:_____

GENERAL EDUCATION		Course Hours Required For Intended Degree	Course Hours Earned
CPCC GOAL I	English Composition/Communications.....( )		
	English.....		_____( )
			_____( )
	Communications.....		_____( )
CPCC GOAL II	Natural Science/Mathematics.....( )		
	Science		_____( )
			_____( )
			_____( )
			_____( )
			_____( )
			_____( )
	Mathematics.....		_____( )
			_____( )
CPCC GOAL III	Technology.....( ).....		_____( )
CPCC GOAL V	Humanities/Fine Arts.....( ).....		_____( )
			_____( )
			_____( )
			_____( )
CPCC GOAL VII	Behavioral and Social Sciences.....( )		_____( )
			_____( )
			_____( )
			_____( )
CPCC GOAL VIII	Health and Physical Education.....( ).....		_____( )
ELECTIVES:.....			_____( )
			64

_____( ) _____( ) _____( ) _____( )

_____( ) _____( ) _____( ) _____( )

College-Level Credit Course Descriptions



Course Prefixes*

ACA	Academic/College Success Skills
ACC	Accounting
AIB	American Institute of Banking
ASL	American Sign Language
AHR	Air Conditioning, Heating and Refrigeration
ANT	Anthropology
ARC	Architectural Technology
ART	Art
AST	Astronomy
ATR	Automation Training
AUB	Automotive Body Repair
AUT	Automotive Technology
BIO	Biology
BPR	BlueprintReading
BUS	Business
CVT/ICT/NCT	Cardiovascular Technology – Invasive Cardiovascular – Non-Invasive Cardiovascular
CHM	Chemistry
CIV	Civil Engineering Technology
COE	Cooperative Education
COM	Communication
CET	Computer Engineering Technology
CIS/CSC/NET	Computer Information Systems
CJC	Criminal Justice
CUL	Culinary
CYT	Cytotechnology
DAN	Dance
DEN	Dental/Assisting Hygiene
DDF	Design Drafting
DDT	Developmental Disabilities
DES	Interior Design
DFT	Drafting
DRA	Drama/Theatre
ECO	Economics
EDU	Early Childhood Associate
ELC	Electricity
ELN	Electronics
EGR	Engineering
ENG	English
EHS	Environment Health and Safety
FIP	Fire Protection Technology
FLO	Floriculture
FRE	French
GEO	Geography
GEL	Geology
GRO	Gerontology
GER	German
GRA	Graphic Arts
GRD	Graphic Design
HEA	Health
HIT	Health Information Technology
HET	Heavy Equipment and Transport Technology -Diesel Mechanics
HIS	History
HOR	Horticulture Technology
HRM	Hotel and Restaurant Management
HSE	Human Services Technology
HUM	Humanities
HYD	Hydraulic
ISC	Industrial Science
INT	International Business
ITN	Internet Technologies
IPP	Interpreter Education
JOU	Journalism
LEX	Legal Education
LOG	Logistics Management
MAC	Machining
MNT	Maintenance
MKT	Marketing and Retailing
MAT	Mathematics
MEC	Mechanical Engineering Technology
MED	Medical Assisting
MLT	Medical Laboratory Technology
MUS	Music
NUR	Nursing
OMT	Operations Management Technology
OST	Office Systems Technology
PHI	Philosophy
PED	Physical Education
PSF	Physical Fitness Technology
PHS	Physical Science, Basic
PTA	Physical Therapist Assistant
PHY	Physics
PLA	Plastics Conversion
PLU	Plumbing
POL	Political Science
POS	Postal Service
PRN	Printing
PSY	Psychology
RED	Reading
REL	Religion
RCP	Respiratory Care
RUS	Russian
SEM	Honors/Seminars
SOC	Sociology
SPA	Spanish
SAB	Substance Abuse
SRV	Surveying and EGR Engineering
TAT	Travel and Tourism
TNE	Telecommunications
TRF	Turfgrass Management
WLD	Welding

ACA - Academic/College Success Skills

	Lecture	Lab	Credit
ACA 118 College Study Skills	1	2	2

Prerequisites:
Corequisites: None

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

ACA 120 Career Assessment	1	0	1

Prerequisites:
Corequisites: None

This course provides the information and strategies necessary to develop clear personal, academic, and professional goals. Topics include personality styles, goal setting, various college curricula, career choices, and campus leadership development. Upon completion, students should be able to clearly state their personal, academic, and professional goals and have a feasible plan of action to achieve those goals.

ACC - Accounting

	Lecture	Lab	Credit

ACC 110 Ten-Key Calculator 0 2 1

Prerequisites:
Corequisites: None

This course is designed to enable mastery of the "touch system" on the ten-key calculator. Emphasis is placed on the "touch system" on the ten-key calculator. Upon completion, students should be able to use the "touch system" on the ten-key calculator in making computations necessary in accounting.

ACC 115 College Accounting 3 2 4

Prerequisites:
Corequisites: None

This course introduces basic accounting principles for a sole proprietorship. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization. This course is intended for those who have not received credit for ACC 120.

ACC 120 Principles Of Accounting I 3 2 4

Prerequisites
Corequisites: None

This course introduces the basic principles and procedures of accounting. Emphasis is placed on collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting cycle. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

ACC 121 Principles of Accounting II 3 2 4

Prerequisites: ACC 120
Corequisites: None

This course is a continuation of ACC 120. Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

ACC 125 Mathematics of Finance 3 0 3

Prerequisites: BUS 121 or MAT 115
Corequisites: None

This course covers computations necessary in accounting for various business transactions. Emphasis is placed on time value of money concepts and calculations needed for topics such as stocks and bonds, annuities, sinking funds, and amortization. Upon completion, students should be able to make computations necessary in accounting for transactions involving these topics.

ACC 129 Individual Income Taxes 2 2 3

Prerequisites:
Corequisites: None

This course introduces the relevant laws governing individual income taxation. Emphasis is placed on filing status, exemptions for dependents, gross income, adjustments, deductions, and computation of tax. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

ACC 130 Business Income Taxes 2 2 3

Prerequisites:
Corequisites: None

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax depreciation, accounting periods and methods, corporations, partnerships, S corporations, estates and trusts, and gifts. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

ACC 140 Payroll Accounting 1 2 2

Prerequisites: ACC 115 or ACC 120
Corequisites: None

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries.

ACC 149 Introduction to Accounting Spreadsheets 1 2 2

Prerequisites: ACC 115 or ACC 120
Corequisites: None

This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include preprogrammed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

ACC 150 Computerized General Ledger 1 2 2

Prerequisites: ACC 115 or ACC 120
Corequisites: None

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC 151 Accounting Spreadsheet Application 1 2 2

Prerequisites: ACC 149
Corequisites: None

This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 220 Intermediate Accounting I 3 2 4

Prerequisites: ACC 121
Corequisites: None

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

	Lecture	Lab	Credit
ACC 221 Intermediate Accounting II	3	2	4

Prerequisites: ACC 220
Corequisites: None
This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 225 Cost Accounting	3	0	3

Prerequisites: ACC 121
Corequisites: None
This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 240 Government and Not-for-Profit Accounting	3	0	3

Prerequisites: ACC 121
Corequisites: None
This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 250 Advanced Accounting	3	0	3

Prerequisites: ACC 220
Corequisites: None
This course is designed to analyze the special problems in accounting for business combinations and consolidated corporate entities. Emphasis is placed on accounting for mergers and consolidations and preparing consolidated working papers and consolidated financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.

ACC 269 Auditing	3	0	3

Prerequisites: ACC 220
Corequisites: None
This course covers the overall framework of the process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

ACC 270 International Accounting	3	0	3

Prerequisites: ACC 120 and INT 220
Corequisites: None
This course includes identifying, recording, and interpreting financial information for accounting systems used in different countries. Topics include currency exchange rates, methods of setting and selecting transfer prices, practices used to account for rates of inflation, and major types of taxes. Upon completion, students should be able to describe accounting systems and their impacts on different currencies and demonstrate a basic knowledge of international accounting computations necessary in accounting for various business transactions. This course is a unique concentration requirement in the International Business concentration in the Business Administration program.

AIB - American Institute of Banking

	Lecture	Lab	Credit
AIB 110 Principles of Banking	3	0	3

Prerequisites:
Corequisites: None
This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.

AIB 111 Teller Training	3	0	3

Prerequisites:
Corequisites: None
This course provides an overview of banking teller operations, bank security, and customer relations in preparation for work as a bank teller. Topics include bank profitability, cash and cash handling, checks and other transactions, balancing and setting, and security threats and their detection. Upon completion, students should be able to discuss the components of teller performance and perform effectively as a teller after minimal on-the-job training.

AIB 112 Oral & Written Communication Skills	3	0	3

Prerequisites:
Corequisites: None
This course covers the communication principles needed for effective written and verbal communications with co-workers and customers in the banking industry. Topics include overcoming barriers to effective communication, effective listening, the writing process, and applying the principles of persuasion. Upon completion, students should be able to develop an active, strong, businesslike, on-paper personality and effectively present themselves in verbal communication.

AIB 115 Marketing for Bankers	3	0	3

Prerequisites:
Corequisites: None
This course is designed to provide a practical understanding of marketing in the financial services organization. Topics include consumer motivation and buying, marketing information and research, the marketing management process, public relations, and communications. Upon completion, students should be able to develop a marketing plan integrating public relations, advertising, sales promotion, selling, and service distribution.

AIB 116 Supervision for Bankers	3	0	3

Prerequisites:
Corequisites: None
This course is designed to provide an overview of basic supervision considerations. Topics include supervisory management fundamentals, problem solving, and decision making. Upon completion, students should be able to demonstrate an understanding of basic managerial functions of supervision,

including planning, organizing, staffing, directing, budgeting, and labor relations.

AIB 121 Economics For Bankers 3 0 3

Prerequisites:
Corequisites: None

This course is designed to provide bankers with an introduction to the fundamental principles of economics. Emphasis is placed on the basics of economics theory, macroeconomics, and examples of the application of economics to banking. Upon completion, students should be able to interpret economic indicators, relate basic principles of economic theory, describe inflation, and compare and contrast economic systems.

AIB 131 Fundamentals of Bank Lending 3 0 3

Prerequisites: ACC 120
Corequisites: None

This course introduces the basic knowledge and skills needed to be an effective lender. Topics include the functions of the loan interview and credit investigation, the "C"'s of credit, elements of loan documentation, and warning signs of problem loans. Upon completion, students should be able to demonstrate an understanding of the credit functions and regulatory issues affecting this key banking function. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.

AIB 133 Bank Cards 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of bank cards including operational aspects, interface with payment system, and relationship to electronic funds transfer technology. Topics include bank cards in the American economy, operations, payment and transfer systems, competition, and legal and regulatory issues. Upon completion, students should be able to demonstrate an understanding of bank cards in the overall framework of the commercial bank's services and profitability.

AIB 141 Law & Banking: Principles 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of the legal aspects of banking and the legal framework within which banks function. Topics include the court system, consumer protection, tangible and intangible property ownership, and the legalities and regulations of bank transactions. Upon completion, students should be able to discuss the non-technical aspects of the legal system and how these affect the bank's organization and operation. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.

AIB 142 Deposit Operations 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of the US payments system and banking law and regulation. Topics include banking law and regulations, current industry practices, bank deposit-taking activities, managing deposited funds, and EFT systems. Upon completion, students should be able to explain how banks operate relative to their deposit-taking activities and management of deposited funds.

AIB 143 Financial Planning 3 0 3

Prerequisites:
Corequisites: None

This course covers the perspectives, principles, and practices of financial planning. Topics include investment, retirement, tax, and estate planning. Upon completion, students should be able to understand the process that looks at a customer's financial picture and recommend strategies to achieve the customer's objectives.

AIB 151 Trust Investments 3 0 3

Prerequisites:
Corequisites: None

This course covers the theory and practice of trust department investment services. Topics include the money market, capital market, relationship between risk and return, economic forecasting principles, valuing stocks, and concepts of portfolio management. Upon completion, students should be able to explain the complexities of the investment process and define the purpose of investments in the bank's trust department.

AIB 152 Trust Business 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of the trust department. Emphasis is placed on the different types of individual and corporate trusts, agencies, and services. Upon completion, students should be able to explain the role of the trust department and identify the services provided and to whom they are delivered.

AIB 222 Money and Banking 3 0 3

Prerequisites:
Corequisites: None

This course provides a fundamental treatment of how money and banks function in the US and world economies. Topics include the roles of money in the US economy, the functions of the Federal Reserve Board, and the workings of monetary and fiscal policies. Upon completion, students should be able to explain how the monetary economy functions, how banks are creators of money, and the impact of the Federal Reserve. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.

AIB 232 Consumer Lending 3 0 3

Prerequisites:
Corequisites: None

This course details the many types of credit arrangements in which a finance charge is paid for the privilege of repaying debt in delayed payments. Topics include consumer credit policy, the loan process, servicing and collecting loans, consumer compliance, and evaluating credit risks. Upon completion, students should be able to identify collection policies and procedures, explain principles of credit evaluation, define open-end credit, and describe indirect lending.

AIB 233 Commercial Lending 3 0 3

Prerequisites:
Corequisites: None

This course introduces the basic principles and procedures used in commercial lending. Topics include the commercial customer, types of commercial loans, the commercial lending process, financial reports, and regulatory requirements. Upon completion, students should be able to demonstrate the knowledge and skills needed to effectively and profitably service the commercial loan customer.

AIB 234 Residential Mortgage Lending 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of the field of mortgage lending and the various financial markets for real estate mort-

gages. Topics include conventional and government related mortgages, contracts, financial markets, and qualifying prospective loan customers. Upon completion, students should be able to demonstrate an understanding of mortgage loan origination and processing, government regulations, and compliance issues.

	Lecture	Lab	Credit
AIB 235 Analyzing Financial Statements	3	0	3

Prerequisites: ACC 120
Corequisites: None
This course provides practice in constructing and analyzing long-range, multiple-year forecasts of income statements and balance sheets, and cash budgets. Topics include trend, ratio, common size, comparative analysis, programs, projections, and cash budgets. Upon completion, students should be able to analyze income statements, balance sheets, and pro forma statements.

AIB 236 Financing Real Estate	3	0	3

Prerequisites:
Corequisites: None
This course introduces construction lending and other areas of commercial real estate finance with particular emphasis on managing credit risk. Topics include real estate law, appraisal, and investment analysis. Upon completion, students should be able to explain the basic formulas used in the analysis of commercial real estate investments and the principles of risk.

AIB 244 Bank Management	3	0	3

Prerequisites:
Corequisites: None
This course introduces the handling of day-to-day bank activities. Emphasis is placed on the objectives, planning, structure, control, and interrelationship of various bank departments. Upon completion, students should be able to demonstrate an understanding of bank objectives and policies and the administration of deposits, loans, and other investments.

AIB 245 Bank Investments	3	0	3

Prerequisites:
Corequisites: None
This course introduces the factors that affect investment strategies and decisions grounded in a framework of fundamental investment concepts such as risk, liquidity, and yield. Topics include profit and risk analysis, characteristics of specific investment instruments, funds strategies, and investment risks and returns. Upon completion, students should be able to identify and describe bank securities, identify tax factors in bank investments, and define investment accounts and maturity strategies.

AIB 246 International Banking	3	0	3

Prerequisites:
Corequisites: None
This course covers international agencies, foreign exchange activities, Edge Act corporations, international lending, and risk assessment. Topics include corresponding bank relationships, foreign exchange, the Eurodollar market, and developing international business. Upon completion, students should be able to identify the various international services banks provide and explain international lending concepts, credit principles, and risk factors.

AIB 253 Trust Operations	3	0	3

Prerequisites:
Corequisites: None
This course covers basic trust terminology and the concepts that comprise the various trust functions. Topics include securities funds, special investments, types of trust accounts and services, and cash and asset/liability transactions. Upon completion, students should be able to explain the management and operations of trust services and apply the fundamentals of trust accounting.

AIB 254 Securities Processing	3	0	3

Prerequisites:
Corequisites: None
This course covers the elements of securities transactions that affect obligations, options, rights of securities issues, and stockholders. Topics include types of securities, the marketplace, and how automated systems help the trading process and regulations. Upon completion, students should be able to demonstrate knowledge and skills concerning specific securities processing activities.
See the SEL and SEM prefixes for generic Selected Topics and Seminar course descriptions.

Advertising

(See GRD Graphic Design)

AHR - Air Conditioning, Heating and Refrigeration

	Lecture	Lab	Credit
AHR 110 Introduction to Refrigeration	2	6	5

Prerequisites:
Corequisites: None
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

AHR 111 HVACR Electricity	2	2	3

Prerequisites:
Corequisites: None
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

AHR 112 Heating Technology	2	4	4

Prerequisites: AHR 111, ELC 111, AHR 130
Corequisites: None
This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR 113 Comfort Cooling	2	4	4

Prerequisites: AHR 111 or ELC 111, AHR 110
Corequisites: None
This course covers the installation procedures, system operations, and maintenance of residential and light commercial com-

fort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

AHR 114 Heat Pump Technology 2 4 4

Prerequisites: AHR 110 or AHR 113
Corequisites: None

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR 115 Refrigeration Systems 1 3 2

Prerequisites: AHR 110
Corequisites: None

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR 120 HVACR Maintenance 1 3 2

Prerequisites:
Corequisites: None

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

AHR 125 HVAC Electronics 1 3 2

Prerequisites:
Corequisites: AHR 111 or ELC 111

This course introduces the common electronic control components in HVAC systems. Emphasis is placed on identifying electronic components and their functions in HVAC systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

AHR 130 HVAC Controls 2 2 3

Prerequisites: AHR 111 or ELC 111
Corequisites: None

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR 133 HVAC Servicing 2 6 4

Prerequisites:
Corequisites: AHR 112 or AHR 113

This course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR 140 All-Weather Systems 1 3 2

Prerequisites: AHR 112 or AHR 113
Corequisites: None

This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC's and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.

AHR 160 Refrigerant Certification 1 0 1

Prerequisites:
Corequisites: None

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 180 HVACR Customer Relations 1 0 1

Prerequisites:
Corequisites: None

This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.

AHR 211 Residential System Design 2 2 3

Prerequisites:
Corequisites: None

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

AHR 212 Advanced Comfort Systems 2 6 4

Prerequisites: AHR 114
Corequisites: None

This course covers water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pumps.

AHR 215 Commercial HVAC Controls 1 3 2

Prerequisites: AHR 111 or ELC 111
Corequisites: None

This course introduces HVAC control systems used in commercial applications. Topics include electric/electronic control systems, pneumatic control systems, DDC temperature sensors, humidity sensors, pressure sensors, wiring, controllers, actuators, and controlled devices. Upon completion, students should be able to verify or correct the performance of common control systems with regard to sequence of operation and safety.

AHR 220 Commercial Building Codes 3 0 2

Prerequisites:
Corequisites: None
This course covers the appropriate sections of the North Carolina State Building Code that govern the installation of commercial comfort, refrigeration, and mechanical systems. Emphasis is placed on using and understanding applications sections of the North Carolina State Building Code. Upon completion, students should be able to use the North Carolina State Building Code to locate information regarding the installation of commercial systems.

AHR 225 Commercial System Design 2 3 3

Prerequisites:
Corequisites: None
This course covers the principles of designing heating and cooling systems for commercial buildings. Emphasis is placed on commercial heat loss/gain calculations, applied psychometrics, air-flow calculations, air distribution system design, and equipment selection. Upon completion, students should be able to calculate heat loss/gain, design and size air and water distribution systems, and select equipment.

AHR 235 Refrigeration Design 2 2 3

Prerequisites: AHR 110
Corequisites: None
This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

AHR 240 Hydronic Heating 1 3 2

Prerequisites: AHR 112
Corequisites: None
This course covers the accepted procedures for proper design, installation, and balance of hydronic heating systems for residential or commercial buildings. Topics include heating equipment; pump, terminal unit, and accessory selection; piping system selection and design; and pipe sizing and troubleshooting. Upon completion, students should be able to assist with the proper design, installation, and balance of typical hydronic systems.

ANT - Anthropology

	Lecture	Lab	Credit
ANT 210 General Anthropology	3	0	3

Prerequisites:
Corequisites: None
This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

ANT 220 Cultural Anthropology 3 0 3

Prerequisites:
Corequisites: None
This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

ASL - American Sign Language

(See also IPP Interpreter Education)

	Lecture	Lab	Credit
ASL 111 Elementary ASL I	3	0	3

Prerequisites:
Corequisites: ASL 181
This course introduces the fundamental elements of American Sign Language. Emphasis is placed on the development of basic expressive and receptive skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to expressive American Sign Language.

ASL 112 Elementary ASL II 3 0 3

Prerequisites: ASL 111
Corequisites: ASL 182
This course is a continuation of ASL 111 focusing on the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to expressive American Sign Language.

ASL 120 ASL for the Workplace 3 0 3

Prerequisites: None
Corequisites: None
This course offers applied American Sign Language (ASL) for the workplace to facilitate basic communication with people whose native language is ASL. Emphasis is placed on expressive and receptive communication and career-specific vocabulary that targets business and industry. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

ASL 181 ASL Lab 1 0 2 1

Prerequisites:
Corequisites: ASL 111
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to expressive American Sign Language.

ASL 182 ASL Lab 2 0 2 1

Prerequisites: ASL 181
Corequisites: ASL 112
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to expressive American Sign Language.

ARC - Architectural Technology

	Lecture	Lab	Credit

ARC 111 Introduction to Arch Technology 1 6 3

Prerequisites:
Corequisites: None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC 112 Construction Materials & Methods 3 2 4

Prerequisites:
Corequisites: None

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ARC 113 Residential Arch Tech 1 6 3

Prerequisites: ARC 111
Corequisites: None

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC 114 Architectural CAD 1 3 2

Prerequisites: ARC 111
Corequisites: None

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

ARC 120 Interior Design-Residential 1 6 3

Prerequisites: ARC 111
Corequisites: None

This course covers principles of light construction and materials. Topics include terminology, components, and light construction codes. Upon completion, students should be able to understand light construction principles.

ARC 131 Building Codes 2 2 3

Prerequisites: ARC 112, ARC 133
Corequisites: None

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

ARC 132 Specifications and Contracts 2 0 2

Prerequisites: ARC 112, ARC 133
Corequisites: None

This course covers the development of written specifications and the implications of different contractual arrangements. Topics include specification development, contracts, bidding material research, and agency responsibilities. Upon completion, students should be able to write a specification section and demonstrate the ability to interpret contractual responsibilities.

ARC 133 Construction Document Analysis 1 3 2

Prerequisites:
Corequisites: None

This course covers the analysis of building construction drawings. Emphasis is placed on material identification, understanding construction details, and the relationships of building structural, mechanical, plumbing, and electrical systems. Upon completion, students should be able to analyze a set of construction drawings by identifying building construction materials and understanding construction details and engineering systems.

ARC 160 Residential Design 1 6 3

Prerequisites: ARC 111
Corequisites: None

This course introduces the methodology of basic residential design. Topics include residential site design, space organization and layout, residential styles, and the development of schematic design. Upon completion, students should be able to design a residence.

ARC 191 Selected Topics in Architectural Technology 0-1 0-3 1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ARC 192 Selected Topics in Architectural Technology 0-2 0-6 2

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ARC 196 Seminar in Architectural Technology 0-1 0-3 1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ARC 197 Seminar in Architectural Technology 0-2 0-6 2

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ARC 212 Commercial Construction Tech 1 6 3

Prerequisites: ARC 113, ARC 114 and ARC 133
Corequisites: None

This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

ARC 213 Design Project 2 6 4

Prerequisites: ARC 131, ARC 212, ARC 230, and CIV 220
Corequisites: None

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC 220 Advanced Architect CAD 1 3 2

Prerequisites: ARC 114
Corequisites: None

This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

ARC 221 Architectural 3-D CAD 1 4 3

Prerequisites: ARC 114
Corequisites: None

This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings.

ARC 230 Environmental Systems 3 3 4

Prerequisites: ARC 114, ARC 133 and MAT 121
Corequisites: None

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

ARC 231 Arch Presentations 2 4 4

Prerequisites: ARC 111
Corequisites: None

This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

ARC 240 Site Planning 2 2 3

Prerequisites: ARC 111 and ARC 114
Corequisites: None

This course introduces the principles of site planning, grading plans, and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control, and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

ARC 250 Survey of Architecture 3 0 3

Prerequisites:
Corequisites: None

This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

ARC 262 Arch Animation & Video 1 6 3

Prerequisites: ARC 221
Corequisites: None

This course covers three dimensional architectural animation. Topics include story boarding, rendered animation creation, audio and video input/output, and techniques for camera and object movement in and around buildings. Upon completion, students should be able to produce rendered architectural animations with sound and archive data to selected media.

ART - Art

Lecture Lab Credit

ART 111 Art Appreciation 3 0 3

Prerequisites:
Corequisites: None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. Concepts related to media and technique will be introduced. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 114 Art History Survey I 3 0 3

Prerequisites:
Corequisites: None

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 115 Art History Survey II 3 0 3

Prerequisites:
Corequisites: None

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 116 Survey of American Art 3 0 3

Prerequisites: None
Corequisites: None

This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts.

Upon completion, students should be able to demonstrate understanding of the history of the American creative experience. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 117 Non-Western Art History 3 0 3

Prerequisites:
Corequisites: None

This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 121 Design I 0 6 3

Prerequisites:
Corequisites: None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

ART 122 Design II 0 6 3

Prerequisites: ART 121
Corequisites: None

This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts. Students will demonstrate an understanding of these concepts in assigned projects.

ART 131 Drawing I 0 6 3

Prerequisites:
Corequisites: None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. Students will apply theories of perspective and composition using media that includes graphite, ink, charcoal and conte crayon.

ART 132 Drawing II 0 6 3

Prerequisites: ART 131
Corequisites: None

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques. Approaches to drawing the human form and color problems will be introduced.

ART 135 Figure Drawing I 0 6 3

Prerequisites: ART 131
Corequisites: None

This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure.

ART 171 Computer Art I 0 6 3

Prerequisites:
Corequisites: None

This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images.

ART 191 Selected Topics in Art 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 192 Selected Topics in Art 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 193 Selected Topics in Art 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 196 Seminar in Art 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 197 Seminar in Art 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 198 Seminar in Art 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 212 Gallery Assistantship I 0 2 1

Prerequisites:
Corequisites: None
This course covers the practical application of display techniques. Emphasis is placed on preparation of artwork for installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate basic gallery exhibition skills.

ART 213 Gallery Assistantship II 0 2 1

Prerequisites: ART 212
Corequisites: None
This course provides additional experience in display techniques. Emphasis is placed on preparation of artwork for exhibition, alternative methods of installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate independent decision-making and exhibition expertise.

ART 214 Portfolio and Résumé 0 2 1

Prerequisites:
Corequisites: None
This course covers résumé writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to résumé writing, and interview techniques. Upon completion, students should be able to mount original art for portfolio presentation, photograph and display a professional slide portfolio, and write an effective résumé

ART 222 Wood Design I 0 6 3

Prerequisites: ART 132
Corequisites: None
This course introduces the historical and contemporary design concepts and their application to the construction of functional and sculptural wood forms. Emphasis is placed on the mastery of hand and power tools. Upon completion, students should be able to demonstrate appropriate use of tools to create unique designs. Safety and correct use, along with maintenance of studio and tools will be emphasized.

ART 223 Wood Design II 0 6 3

Prerequisites: ART 222
Corequisites: None
This course provides a continuation of the skills and techniques used in ART 222. Emphasis is placed on woodcarving and other processes. Upon completion, students should be able to use original designs in the creation of functional and sculptural forms.

ART 231 Printmaking I 0 6 3

Prerequisites:
Corequisites: None
This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods. This course introduces relief, intaglio, serigraphy and planographic processes.

ART 232 Printmaking II 0 6 3

Prerequisites: ART 231
Corequisites: None
This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods.

ART 235 Figure Drawing II 0 6 3

Prerequisites: ART 135
Corequisites: None
This course extends the study and rendering of the draped and undraped human figure. Emphasis is placed on the exploration of materials and approaches to drawing. Upon completion, students should be able to demonstrate creativity in the representation of the figure.

ART 240 Painting I 0 6 3

Prerequisites:
Corequisites: None
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. Students will principally work on easels using oil or acrylic.

ART 241 Painting II 0 6 3

Prerequisites: ART 240
Corequisites: None
This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. As in Painting I, students will principally work on easels using oil or acrylic.

ART 242 Landscape Painting 0 6 3

Prerequisites: ART 240
Corequisites: None
This course introduces and practices the skills and techniques of open-air painting. Emphasis is placed on techniques of painting summer foliage, skies, and mountains, and the elements of aerial perspective. Upon completion, students should be able to complete an open-air landscape painting employing brush, knife, scumbling, and glazing techniques. Historical and contemporary styles and techniques related to landscape painting will be introduced.

ART 243 Portrait Painting 0 6 3

Prerequisites: ART 240
Corequisites: None
This course covers the portrait as subject matter by use of live models. Topics include composition, color mixing, and the history of portraiture. Upon completion, students should be able to demonstrate competence in the traditional approach to portrait painting.

ART 244 Watercolor 0 6 3

Prerequisites:
Corequisites: None
This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media.

ART 245 Metals I 0 6 3

Prerequisites: ART 121
Corequisites: None

This course introduces basic metal design in traditional and contemporary art forms using brass, copper, and silver. Emphasis is placed on designing and fabricating jewelry, small sculptures, and utilitarian objects. Upon completion, students should be able to design and produce small art objects.

ART 246 Metals II 0 6 3

Prerequisites: ART 245
Corequisites: None

This course provides a continuation of metal design utilizing basic methods of casting and other processes. Emphasis is placed on individualized design. Upon completion, students should be able to design and produce expressive forms.

ART 247 Jewelry I 0 6 3

Prerequisites:
Corequisites: None

This course introduces a basic understanding of the design and production of jewelry. Emphasis is placed on concepts and techniques using metals and other materials. Upon completion, students should be able to demonstrate an ability to use appropriate methods to create unique jewelry. Processes such as piercing, filing, forming and forging will be introduced.

ART 248 Jewelry II 0 6 3

Prerequisites: ART 247
Corequisites: None

This course is a continuation of the skills learned in ART 247. Emphasis is placed on the creation of individual designs that utilize a variety of techniques such as casting, cloisonné, and plique-a-jour. Upon completion, students should be able to create jewelry which demonstrates originality.

ART 250 Surface Design: Textiles 0 6 3

Prerequisites:
Corequisites: None

This course introduces the basic principles and elements of art as applied to textile surfaces. Emphasis is placed on direct, top-dyed processes that utilize both synthetic and natural dyes, and techniques such as batiking, stenciling, and stamping. Upon completion, students should be able to demonstrate a basic understanding of appropriate materials and techniques as they apply to original design on a variety of textile surfaces.

ART 251 Weaving I 0 6 3

Prerequisites:
Corequisites: None

This course provides a basic understanding of the design and production of constructed textiles. Emphasis is placed on traditional weaving techniques. Upon completion, students should be able to warp and dress the loom and use appropriate techniques for the creation of unique woven fabrics.

ART 252 Weaving II 0 6 3

Prerequisites: Art 251
Corequisites: None

This course furthers an exploration of creative design as it relates to manipulated fiber construction. Emphasis is placed on traditional and experimental methods. Upon completion, students should be able to create fiber constructions that utilize appropriate techniques for individual expressive designs.

ART 260 Photography Appreciation 3 0 3

Prerequisites:
Corequisites: None

This course introduces the origins and historical development of photography. Emphasis is placed on the study of composition and history of photography as an art form. Upon completion, students should be able to recognize and produce, using color transparencies, properly exposed, well-composed photographs. Using their own 35mm cameras, students will receive instruction and practice in camera handling, films, filters, lenses, and composition.

ART 261 Photography I 0 6 3

Prerequisites: ART 260
Corequisites: None

This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition. Using their own 35mm camera to take photographs, students will develop printing techniques such as burning, dodging, controlling density and contrast, and basic photo finishing.

ART 262 Photography II 0 6 3

Prerequisites: ART 261
Corequisites: None

This course introduces the creative manipulation of alternative photographic materials and processes such as toning, hand coloring, infrared, and multiple exposure. Emphasis is placed on personal vision and modes of seeing. Upon completion, students should be able to create properly exposed images using a variety of photographic materials and processes.

ART 263 Color Photography 0 6 3

Prerequisites: ART 262
Corequisites: None

This course provides an introduction to the procedures and processes involved in color photography. Emphasis is placed on the study of light, filtration, exposure, and films along with the processing and printing of color negative materials. Upon completion, students should be able to demonstrate an understanding of color principles, theories, and processes by using them creatively in the production of color prints.

ART 271 Computer Art II 0 6 3

Prerequisites: ART 171
Corequisites: None

This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision.

ART 281 Sculpture I 0 6 3

Prerequisites:
Corequisites: None

This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in a variety of sculptural approaches. Students will develop an understanding of historical as well as contemporary ideas related to sculpture.

ART 282 Sculpture II 0 6 3

Prerequisites: ART 281
Corequisites: None
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture. Students will be expected to be experiential in their concepts and approaches to sculpture.

ART 283 Ceramics I 0 6 3

Prerequisites:
Corequisites: None
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression. Assignments are structured to encourage students to explore their own personal expression.

ART 284 Ceramics II 0 6 3

Prerequisites: ART 283
Corequisites: None
This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness. The aesthetics of pottery form are explored.

ART 285 Ceramics III 0 6 3

Prerequisites: ART 284
Corequisites: None
This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate a knowledge of materials and techniques necessary to successfully create original projects in the clay medium. Through contractual agreement with the instructor, students continue to explore personal expression using the medium of clay.

ART 286 Ceramics IV 0 6 3

Prerequisites: ART 285
Corequisites: None
This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium. Through contractual agreement with the instructor, students continue to explore personal expression using the medium of clay.

ART 288 Studio 0 6 3

Prerequisites:
Corequisites: None
This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques. Through contractual agreement with the instructor, students will continue to explore personal expressions in their chosen media.

ART 289 Museum Study 2 2 3

Prerequisites:
Corequisites: None
This course introduces research methods in the museum setting. Emphasis is placed on the chronology, styles, periods, context, and meaning in art. Upon completion, students should be able to demonstrate the advantage of first-hand and on-site research.

ART 291 Selected Topics in Art 1 0-3 1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 292 Selected Topics in Art 0-2 0-6 2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 293 Selected Topics in Art 1-3 0-6 3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 296 Seminar in Art 0-1 0-3 1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 297 Seminar in Art 0-2 0-6 2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 298 Seminar in Art 3 0 3

Prerequisites: Enrollment in the Honors program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical

listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions. This is an honors course and permission to enroll must be gained from the Honors Program Office.

AST - Astronomy

	Lecture	Lab	Credit
AST 111 Descriptive Astronomy	3	0	3

Prerequisites:
Corequisites: None
This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. To receive science credit toward the AA or AS degree you must register for and complete AST 111A. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

AST 111A Descriptive Astronomy Lab	0	2	1

Prerequisites:
Corequisites: AST 111
The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. This course may be taken concurrently or subsequent to the completion of AST 111. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

AST 251 Observational Astronomy	1	3	2

Prerequisites: AST 111 or AST 152
Corequisites: None
This course covers the operation of the telescope and related observatory equipment. Emphasis is placed on the use of the telescope and related observatory equipment, including techniques of data collection, measurements, and data analysis. Upon completion, students should be able to set up a telescope and use the coordinate system to locate objects, collect data, and make measurements with the telescope.

ATR - Automation Training

See also DDF-Design Drafting, DFT-Drafting, ISC-Industrial Science, MEC-Mechanical Engineering Technology, and PLA-Plastics for other courses.

	Lecture	Lab	Credit
ATR 112 Intro to Automation	2	3	3

Prerequisites:
Crequisites: None
This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

ATR 211 Robot Programming	2	3	3

Prerequisites: CIS 110
Crequisites: None
This course provides the operational characteristics of industrial robots and programming in their respective languages. Topics include robot programming utilizing teach pendants, PLCs, and personal computers; and the interaction of external sensors, machine vision, network systems, and other related devices. Upon completion, students should be able to program and demonstrate the operation of various robots.

AUB - Automotive Body Repair

	Lecture	Lab	Credit
AUB 111 Painting & Refinishing I	2	6	4

Prerequisites:
Corequisites: None
This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

AUB 112 Painting & Refinishing II	2	6	4

Prerequisites: AUB 111
Corequisites: None
This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

AUB 114 Special Finishes	1	2	2

Prerequisites: AUB 111
Corequisites: None
This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

AUB 121 Non-Structural Damage I	1	4	3

Prerequisites:
Corequisites: None
This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

AUB 122 Non-Structural Damage II	2	6	4

Prerequisites:
Corequisites: None
This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace

direct and indirect damage to accepted standards including movable glass and hardware.

AUB 131 Structural Damage I 2 4 4

Prerequisites:
Corequisites: None

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

AUB 132 Structural Damage II 2 6 4

Prerequisites: AUB 131
Corequisites: None

This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

AUB 134 Autobody MIG Welding 1 4 3

Prerequisites:
Corequisites: None

This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

AUB 136 Plastics & Adhesives 1 4 3

Prerequisites:
Corequisites: None

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

AUB 141 Mechanical & Electrical Components I 2 2 3

Prerequisites:
Corequisites: None

This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

AUB 162 Autobody Estimating 1 2 2

Prerequisites:
Corequisites: None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

AUT - Automotive Technology

	Lecture	Lab	Credit

AUT 110 Introduction to Auto Technology 2 2 3

Prerequisites: None
Corequisites: None

This course covers the basic concepts and terms of automotive technology, workplace safety, North Carolina state inspection, safety and environmental regulations, and use of service information resources. Topics include familiarization with components along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe terms associated with automobiles, identify and use basic tools and shop equipment, and conduct North Carolina safety/emissions inspections.

AUT 111 Basic Auto Technology 1 2 2

Prerequisites: None
Corequisites: None
Start Term: 1997*02

This course introduces basic concepts, terms, workplace safety, regulations, and service information relating to automotive components along with basic identification and proper use of various hand and power tools and shop equipment. Upon completion, students should be able to define and use terms associated with automobiles and identify and use basic tools and shop equipment.

AUT 113 Automotive Servicing 2 6 4

Prerequisites: AUT 115, AUT 141, AUT 151, AUT 161, AUT 171
Corequisites: None

This course covers diagnostic procedures necessary to determine the nature and cause of auto service problems and the procedures used to repair/replace components. Emphasis is placed on troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and operate appropriate equipment.

AUT 115 Engine Fundamentals 2 3 3

Prerequisites:
Corequisites: None

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 141 Suspension & Steering Systems 2 4 4

Prerequisites:
Corequisites: None

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able

to service and repair various steering and suspension components, check and adjust various alignment angles, and balance wheels.

AUT 151 Brake Systems 2 2 3

Prerequisites:
Corequisites: None
This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 152 Brake Systems Lab 0 2 1

Prerequisites:
Corequisites: AUT 151
This course provides a laboratory setting to enhance brake system skills. Emphasis is placed on practical experiences that enhance the topics presented in AUT 151. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 151.

AUT 161 Electrical Systems 2 6 4

Prerequisites:
Corequisites: None
This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators, and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students should be able to diagnose, test, and repair the basic electrical components of an automobile.

AUT 162 Chassis Elect & Electronics 2 2 3

Prerequisites: AUT 164
Corequisites: None
This course covers electrical/electronic diagnosis/repair, including wiring diagrams, instrumentation, and electronic/computer-controlled devices and accessories. Topics include interpreting wiring diagrams and diagnosis and repair of chassis electrical and electronic systems. Upon completion, students should be able to read and interpret wiring diagrams and determine/perform needed repairs on chassis electrical and electronic systems.

AUT 164 Automotive Electronics 2 2 3

Prerequisites: AUT 161
Corequisites: None
This course covers fundamentals of electrical/electronic circuitry, semi-conductors, and microprocessors. Topics include Ohm's law, circuits, AC/DC current, solid state components, digital applications, and the use of digital multimeters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multimeters and appropriate service information.

AUT 171 Heating & Air Conditioning 2 3 3

Prerequisites:
Corequisites: None
This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

AUT 183 Engine Performance-Fuels 2 3 3

Prerequisites:
Corequisites: None
This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.

AUT 184 Engine Performance-Fuels Lab 0 3 1

Prerequisites:
Corequisites: AUT 183
This course provides a laboratory setting to enhance the skills for diagnosing and repairing fuel delivery/management and emission systems. Emphasis is placed on practical experiences that enhance the topics presented in AUT 183. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 183.

AUT 186 Automotive Computer Appl 1 2 2

Prerequisites: None
Corequisites: None
This course introduces computer operating systems, word processing and electronic automotive service information systems. Emphasis is placed on operation systems, word processing, and electronic automotive service information systems. Upon completion, students should be able to use an operating system to access information pertaining to automotive technology and perform word processing.

AUT 221 Automatic Transmissions 2 6 4

Prerequisites:
Corequisites: None
This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

AUT 222 Advanced Auto Drive Trains 2 2 3

Prerequisites: None
Corequisites: None
Start Term: 1997*02
This course covers advances diagnosis and repair of automatic drive trains. Topics include testing of sensors, actuators, and control modules using on-board diagnostics, appropriate service information, and equipment. Upon completion, students should be able to perform advanced automatic drive train diagnosis and repair.

AUT 231 Manual Drive Trains/Axles 2 3 3

Prerequisites:
Corequisites: None
This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles,

and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

AUT 232 Manual Drive Trains/Axles Lab 0 3 1

Prerequisites: None
Corequisites: AUT 231
Start Term: 1997*02

This course provides a laboratory setting to enhance the skills for dianosing and repairing manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Emphasis is placed on practical experiences that enhance the topics presented in AUT 231. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 231.

AUT 281 Adv Engine Performance 2 2 3

Prerequisites: AUT 161, AUT 183
Corequisites: None

This course utilizes service information and specialized test equipment to diagnose/repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.

BIO - Biology

	Lecture	Lab	Credit
BIO 110 Principles of Biology	3	3	4

Prerequisites:
Corequisites: None

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 111 General Biology I 3 3 4

Prerequisites:
Corequisites: None

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 112 General Biology II 3 3 4

Prerequisites: BIO 111 or equivalent
Corequisites: None

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 120 Introductory Botany 3 3 4

Prerequisites: BIO 110, BIO 111 BIO 1500, BIO 1502 or equivalent
Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 130 Introductory Zoology 3 3 4

Prerequisites: BIO 110, BIO 111 BIO 1500, BIO 1501 or equivalent
Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 143 Field Biology Minicourse 1 2 2

Prerequisites:
Corequisites: None

This course introduces the biological and physical components of a field environment. Emphasis is placed on a local field environment with extended field trips to other areas. Upon completion, students should be able to demonstrate an understanding of the biological and physical components of the specific biological environment.

BIO 145 Ecology 3 3 4

Prerequisites: BIO 110 or BIO 111
Corequisites: None

This course provides an introduction to ecological concepts using an ecosystems approach. Topics include energy flow, nutrient cycling, succession, population dynamics, community structure, and other related topics. Upon completion, students should be able to demonstrate comprehension of basic ecosystem structure and dynamics.

BIO 155 Nutrition 3 0 3

Prerequisites:
Corequisites: None

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.

BIO 161 Intro to Human Biology 3 0 3

Prerequisites:
Corequisites: None

This course provides a basic survey of human biology. Emphasis is placed on the basic structure and function of body systems and the medical terminology used to describe normal and pathological states. Upon completion, students should be able to demonstrate an understanding of normal anatomy and physiology and the appropriate use of medical terminology.

BIO 163 Basic Anatomy & Physiology 4 2 5

Prerequisites:
Corequisites: None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

BIO 168 Anatomy and Physiology I 3 3 4

Prerequisites:
Corequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, nervous, special senses, and endocrine systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 169 Anatomy and Physiology II 3 3 4

Prerequisites: BIO 168 BIO 1504 or equivalent
Corequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 170 Introductory Microbiology 3 3 4

Prerequisites:
Corequisites: None

This course introduces fundamental concepts of microbiology with emphasis on the relationships of microorganisms to humans. Topics include common groups of microorganisms and their relationships to human disease, including means of transmission, body defenses, prevention, control, and treatment. Upon completion, students should be able to practice and recognize the value of aseptic technique in microbial control.

BIO 175 General Microbiology 2 2 3

Prerequisites: BIO 110, BIO 163, BIO 166, BIO 169, BIO 1500, BIO 1505 or equivalent
Corequisites: None

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.

BIO 191 Selected Topics in Biology 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any biology topics course must have an instructor's permission.

BIO 193 Selected Topics in Biology 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any biology topics must have an instructor's permission.

BIO 230 Entomology 3 3 4

Prerequisites: BIO 110, BIO 112 BIO 1500 or equivalent
Corequisites: None

This course covers the biology of insects. Topics include harmful and beneficial insects, their identification, classification, life cycles, behavior, distribution, economic importance, and the methods involved in collection and preservation. Upon completion, students should be able to identify common insects and describe their biology and ecology.

BIO 235 Ornithology 3 3 4

Prerequisites: BIO 110, BIO 111 BIO 1500 or equivalent
Corequisites: None

This course introduces the biology of birds. Emphasis is placed on the systematic, recognition, distribution, anatomy, physiology, behavior, and ecology of birds. Upon completion, students should be able to identify various avian species and demonstrate a knowledge of their biology and ecology.

BIO 243 Marine Biology 3 3 4

Prerequisites: BIO 110 or BIO 111
Corequisites: None

This course covers the physical and biological components of the marine environment. Topics include major habitats, the diversity of organisms, their biology and ecology, marine productivity, and the use of marine resources by humans. Upon completion, students should be able to identify various marine habitats and organisms and to demonstrate a knowledge of their biology and ecology

BIO 271 Pathophysiology 3 0 3

Prerequisites: BIO 163, BIO 166, BIO 169, BIO 1500 or equivalent
Corequisites: None

This course provides an in-depth study of human pathological processes and their effects on homeostasis. Emphasis is placed on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology.

BIO 272 Cardiopulmonary Biology 2 2 3

Prerequisites: BIO 166, BIO 169 BIO 1505 or equivalent
Corequisites: None

This course provides an in-depth study of cardiovascular and respiratory functions and their relationships. Emphasis is placed on the interpretation of blood gases and other analytical mea-

surements. Upon completion, students should be able to demonstrate a detailed knowledge of circulatory and respiratory anatomy and physiology.

BIO 275 Microbiology 3 3 4

Prerequisites: BIO 110, BIO 112, BIO 163, BIO 165, or BIO 168, BIO 1500, BIO 1504 or equivalent
Corequisites: None

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.

BIO - Advancement Studies (BIO 094)

See Pre-College section of this catalog.

BPR - Blueprint Reading

	Lecture	Lab	Credit
BPR 111 Blueprint Reading	1	2	2

Prerequisites:
Corequisites: None

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

BUS - Business

	Lecture	Lab	Credit
BUS 110 Introduction to Business	3	0	3

Prerequisites:
Corequisites: None

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

BUS 115 Business Law I 3 0 3

Prerequisites:
Corequisites: None

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 116 Business Law II 3 0 3

Prerequisites: BUS 115
Corequisites: None

This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 121 Business Math 2 2 3

Prerequisites:
Corequisites: None

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

BUS 125 Personal Finance 3 0 3

Prerequisites:
Corequisites: None

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

BUS 135 Principles of Supervision 3 0 3

Prerequisites:
Corequisites: None

This course introduces the basic responsibilities and duties of the supervisor and his/her relationship to higher-level supervisors, subordinates, and associates. Emphasis is placed on effective utilization of the work force and understanding the role of the supervisor. Upon completion, students should be able to apply supervisory principles in the work place.

BUS 137 Principles of Management 3 0 3

Prerequisites:
Corequisites: None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

BUS 153 Human Resource Management 3 0 3

Prerequisites:
Corequisites: None

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

BUS 210 Investment Analysis 3 0 3

Prerequisites: ACC 111 or ACC 120
Corequisites: None

This course examines the concepts related to financial investment and the fundamentals of managing investments. Emphasis is placed on the securities markets, stocks, bond, and mutual funds, as well as tax implications of investment alternatives. Upon completion, students should be able to analyze and interpret investment alternatives and report findings to users of financial information.

BUS 217 Employment Law and Regulations 3 0 3

Prerequisites: None
Corequisites: None

This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment

practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.

BUS 220 Purchasing 3 0 3

Prerequisites:
Corequisites: None

This course introduces the purchasing function and explains its role in business. Topics include the legal and ethical aspects of purchasing, quality assurance, and the application of purchasing formulas and methods for cost analysis. Upon completion, students should be able to complete a purchase transaction incorporating legal, ethical, quality, and cost considerations.

BUS 225 Business Finance 2 2 3

Prerequisites: ACC 120
Corequisites: None

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

BUS 228 Business Statistics 2 2 3

Prerequisites: MAT 161 or MAT 115 or MAT 140
Corequisites: None

This course introduces the use of statistical methods and tools in evaluating research data for business applications. Emphasis is placed on basic probability, measures of spread and dispersion, central tendency, sampling, regression analysis, and inductive inference. Upon completion, students should be able to apply statistical problem solving to business.

BUS 230 Small Business Management 3 0 3

Prerequisites:
Corequisites: None

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

BUS 231 Computerized Inventory 2 2 3

Prerequisites: ACC 120 and CIS 110 or CIS 111
Corequisites: None

This course provides an overview of inventory procedures as related to management decisions. Emphasis is placed on general terms, methods, techniques, and computer applications. Upon completion, students should be able to apply inventory principles and processes in the workplace included in BUS 151. Topics include causes for communication breakdown, behavior styles, and advanced techniques for assertiveness and conflict resolution in the business environment. Upon completion, students should be able to recognize and handle conflict situations and the difficult people who create them.

BUS 234 Training and Development 3 0 3

Prerequisites: None
Corequisites: None

This course covers developing, conducting, and evaluating employee training with attention to adult learning principles. Emphasis is placed on conducting a needs assessment, using various instructional approaches, designing the learning environment, and locating learning resources. Upon completion, students should be able to design, conduct, and evaluate a training program.

BUS 252 Labor Relations

Prerequisites: None
Corequisites: None

This course covers the history of the organized labor movement and the contractual relationship between corporate management and employees represented by a union. Topics include labor laws and unfair labor practices, the role of the NLRB, organizational campaigns, certification/decertification elections, and grievance procedures. Upon completion, students should be able to act in a proactive and collaborative manner in an environment where union representation exists.

BUS 255 Org Behavior in Business 3 0 3

Prerequisites: None
Corequisites: None

This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.

BUS 256 Recruit Selection and Personnel Planning 3 0 3

Prerequisites: None
Corequisites: None

This course introduces the basic principles involved in managing the employment process. Topics include personnel planning, recruiting, interviewing and screening techniques, maintaining employee records; and voluntary and involuntary separations. Upon completion, students should be able to acquire and retain employees who match position requirements and fulfill organizational objectives. This course is a unique concentration requirement of the Human Resources Management concentration in the Business Administration program.

BUS 258 Compensation and Benefits 3 0 3

Prerequisites: None
Corequisites: None

This course is designed to study the basic concepts of pay and its role in rewarding performance. Topics include wage and salary surveys, job analysis, job evaluation techniques, benefits, and pay-for-performance programs. Upon completion, students should be able to develop and manage a basic compensation system to attract, motivate, and retain employees. This course is a unique concentration requirement of the Human Resources Management concentration in the Business Administration program.

BUS 259 HRM Applications 3 0 3

Prerequisites: BUS 217, BUS 234, BUS 256, and BUS 258
Corequisites: None

This course provides students in the Human Resource Management concentration the opportunity to reinforce their learning experiences from preceding HRM courses. Emphasis is placed on application of day-to-day HRM functions by completing in-basket exercises and through simulations. Upon completion, students should be able to determine the appropriate actions called for by typical events that affect the status of people at work. This course is a unique concentration requirement of the Human Resources Management concentration in the

Business Administration program.

BUS 260 Business Communication 3 0 3

Prerequisites: ENG 111
Corequisites: None

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

CVT - Cardiovascular Technology

		Lecture	Lab	Clinic	Credit
ICT 114	**Cardiovascular I**	1	3	0	2

Prerequisites: Enrollment in the Cardiovascular Technology Program
Corequisites: NCT Electrophysiology I

This course provides an introduction to the field of cardiovascular technology and the role of the cardiovascular technologist. Topics will include content related to ethical and legal issues, professionalism, medical terminology, and Basic Life Supports. Upon completion, students should demonstrate an understanding of the jobs available in the Cardiovascular Technology field and develop an appreciation for patients' needs and rights.

ICT 124 Cardiovascular II 2 2 0 3

Prerequisites: NCT 113 Electrophysiology I
ICT 114 Cardiovascular I
Corequisites: NCT 123 Electrophysiology II
ICT 136 Cardiovascular Physiology

This course expands on the skills and knowledge addressed in Cardiovascular I. Instructions include right heart catheterization, vascular access and basic computer skills associated with hemodynamic monitoring; basic life support is increased to instructor level. Successful completion of this course will allow the demonstration of sterile conscience, record intracardiac pressures and setup of catheterization trays and lines.

ICT 136 Cardiovascular Physiology 2 2 0 3

Prerequisites: NCT 113 Electrophysiology I
ICT 114 Cardiovascular I
Corequisites: NCT 123 Electrophysiology II
ICT 124 Cardiovascular II

This course provides training in cardiovascular interests with an overview of invasive diagnosis and intervention therapy. Students will be introduced to the cardiac catheterization lab, x-ray theory and safety, invasive cardiac measurements, and calculations. Upon completion of this course, students should be able to analyze issues of angiographic anatomy and understand principles of right and left heart catheterization.

ICT 134 Invasive CV Fund. 2 2 0 3

Prerequisites: NCT 123 Electrophysiology II
ICT 124 Cardiovascular II
ICT 136 Cardiovascular Physiology
Corequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Clinical Obs.

This course provides an advanced study of normal cardiovascular physiology, invasive diagnosis and intervential therapy. Course work will be related to circulation, x-ray theory, safety and positioning, angiographic anatomy of the cardiovascular system, pharmacology and invasive cardiac measurements and calculations. Upon completion, the students should be able to describe physical factors, principles of the heart and how these relate to the electrocardiogram.

ICT 144 Cardiac Cath I 2 2 0 3

Prerequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
ICT 134 Invasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Obs.
Corequisites: ICT 214 Cardiac Catheterization II

This course provides an introduction to invasive heart catheterization techniques. Courses include review in ECG, echo, and non-invasive tests. Upon completion, the student will be able to identify the use of cardiac catheterization equipment and develop entry level skills as a scrub assistant.

ICT 214 Cardiac Cath II 2 3 6 5

Prerequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
ICT 134 Invasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Obs.
Corequisites: ICT 144 Cardiac Catheterization I

This course provides intensive development of cardiac catheterization skills necessary to assist with right and left heart catheterizations. Courses include coronary angioplasty, swanganz placement and competencies in hemodynamic calculations. Upon completion students will be prepared to provide supervised assistance to cardiovascular technologists in heart catheterization procedures, cardiac pharmacology and advanced cardiac Life Saving.

ICT 224 Cardiac Cath III 2 3 6 5

Prerequisites: ICT 144 Cardiac Catheterization I
ICT 214 Cardiac Catheterization II
Corequisites: ICT 234 Cardiac Catheterization IV

This course provides intensive study of advanced procedures such as: pacemaker, implantable defibrillators and surgical procedures: including bypass surgery and heart valve replacement. Instruction includes operation of the intra aortic balloon pump, blood gases, cardiac output and shunt determination. Upon completion the student should be able to assist, under supervision, with permanent pacemakers; describe cardiovascular department principles and demonstrate competency in surgical sterile techniques.

ICT 234 Cardiac Cath IV 0 0 15 5

Prerequisites: ICT 144 Cardiac Catheterization I
ICT 214 Cardiac Catheterization II
Corequisites: ICT 224 Cardiac Catheterization III

This course will develop the clinical skills of the student by utilizing a full-time clinical internship. This course prepares the student; by exposure; to the full range of duties expected of the cardiac catheterization technologist and various surgical specialties. The completion of this course will enable the student to perform as a supervised member of the cardiac team, assist and monitor hemodynamic parameters of cardiac patients.

NCT 113 Electrophysiology I 1 3 0 2

Prerequisites: Enrollment in the Cardiovascular Technology Program
Corequisites: ICT 114 Cardiovascular I

This course provides an introduction to the field of cardiovascular technology, basic anatomy, physiology, and electrophysiology. Emphasis is placed on the identification of the major components of the cardiovascular system, cardiovascular functions and the physiology related to these functions. Upon completion, students should be able to understand the concepts of electrophysiology of the heart with the ability to perform and interpret the electrocardiogram.

NCT 123 Electrophysiology II 2 2 0 3

Prerequisites: NCT 113 Electrophysiology I
ICT 114 Cardiovascular I
Corequisites: ICT 124 Cardiovascular II
ICT 136 Cardiovascular Physiology

This course describes the principles of the physiology of exercise, cardiac exercise tolerance testing, holter monitoring and cardiac pacemakers. Emphasis is placed on the indication and contraindication of cardiac testing and related concepts. Upon completion, student should be able to perform, interpret, and address issues of cardiac stress testing.

NCT 133 Noninvasive CV Fund. 2 2 0 3

Prerequisites: NCT 113, 123 Electrophysiology I, II
ICT 114, 124 Cardiovascular I, II
ICT 136 Cardiovascular Physiology
Corequisites: NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Clinical Obs
ICT 134 Invasive Cardiovascular Fundamentals

This course introduces the basic principles and applications of echocardiographic procedures. Emphasis is placed on the physical assessment, physical principles of cardiac ultrasound and echocardiographic imaging planes. Upon completion, students should be able to identify echocardiographic views with application of echocardiographic principles.

NCT 141 Computers For The CV Tech 2 2 0 3

Prerequisites: ICT 136 Cardiovascular Physiology
NCT 133 Noninvasive Cardiovascular Fundamentals
ICT 134 Invasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Clinical Obs.
Corequisites: NCT 253 Electrocardiography I
NCT 251 Echocardiography Clinical I

This course provides knowledge of computer applications in medicine. Emphasis is placed on the ability to use the microprocessor for word processing, data base management and statistical analysis. Upon completion, the student should be able to develop a data base and management of statistics and applications of spreadsheet functions in the medical environment.

NCT 142 Noninvasive CV Cl Prep 2 2 0 3

Prerequisites: NCT 113, 123 Electrophysiology I, II
ICT 114, 124 Cardiovascular I, II
ICT 136 Cardiovascular Physiology
Corequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
NCT 143 Noninvasive Cardiovascular Clinical Obs.
ICT 134 Invasive Cardiovascular Fundamentals

This course is designed to develop basic imaging skills by imaging normals in the simulated laboratory. Emphasis is placed on the clinical requirements and expectations of the student in the clinical setting and performance of a limited examination with respective calculations. Upon completion, the students should be able to perform a limited examination with completion of calculations.

NCT 143 Noninvasive CV Cl Obs 1 2 3 3

Prerequisites: NCT 113, 123 Electrophysiology I, II
ICT 114, 124 Cardiovascular I, II
ICT 136 Cardiovascular Physiology
Corequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Observation
ICT 134 Invasive Cardiovascular Fundamentals

This course provides an introduction to the clinical setting. Emphasis is placed on the clinical environment, preparation of the patient for cardiovascular procedures, understanding medical ethics, and clinical reviews. Upon completion, the student should be able to perform basic cardiovascular procedures, under supervision, with related applications.

NCT 251 Echocardiography Cl I 0 0 6 2

Prerequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Clinical Obs.
Corequisites: NCT 253 Echocardiography I
NCT 141 Computers for Cardiovascular Tech

This course provides hands-on experience in the clinical environment. Students develop techniques and cognitive skills necessary to perform an echocardiogram for the evaluation of a variety of acquired cardiovascular diseases. Upon completion, students should be able to utilize skills necessary to perform an echocardiogram with recognition of a variety of pathophysiology states.

NCT 253 Echocardiography I 2 2 0 3

Prerequisites: NCT 133 Noninvasive Cardiovascular Fundamentals
NCT 142 Noninvasive Cardiovascular Clinical Prep
NCT 143 Noninvasive Cardiovascular Clinical Obs.
ICT 134 Invasive Cardiovascular Fundamentals
Corequisites: NCT 251 Echocardiography Clinical I
NCT 141 Computer For Cardiovascular Tech

This course reviews the fundamentals of cardiovascular technology necessary for the evaluation of acquired cardiovascular diseases. Students will be able to incorporate all forms of cardiovascular testing with performance and interpretation of echocardiograms. Upon completion, students should be able to perform an echocardiographic examination and correlate findings.

NCT 263 Echocardiography II 2 2 0 3

Prerequisites: NCT 253 Echocardiography I
NCT 251 Echocardiography Clinical I
NCT 141 Computers for Cardiovascular Tech
Corequisites: NCT 261, 273 Echocardiography Clinical II, III

This course expands on the techniques and cognitive skills emphasized in Echocardiography I. Topics include with specialized applications, evaluation of congenital heart abnormalities and quality control measures. Upon completion, students should be able to demonstrate the skills necessary to perform a complete echocardiogram with identification of pathophysiology.

NCT 261 Echocardiography Cl II 0 0 12 4

Prerequisites: NCT 253 Echocardiography I
NCT 251 Echocardiography Clinical I
Corequisites: NCT 263 Echocardiography II
NCT 273 Echocardiography Clinical III

This course expands on the skills developed in Echocardiography Clinical I. Students will continue to perfect techniques and cognitive skills necessary to perform an echocardiogram. Upon completion, students should be able to perform a complete examination with increased development of qualitative and quantitative applications in a variety of disease states.

NCT 273 Echocardiography Cl III 0 0 15 5

Prerequisites: NCT 253 Echocardiography I
NCT 251 Echocardiography Clinical I
NCT 141 Computers for Cardiovascular Tech
Corequisites: NCT 261 Echocardiography I
NCT 263 Echocardiography II

This course provides expanded techniques and concepts required for a comprehensive echocardiographic examination utilizing skills developed in Echocardiography Clinical II. Students will be able to correlate findings with pathophysiology present through proper imaging acquisition. Upon completion of this course, students should be able to function at an entry level in the field of noninvasive cardiology

Career Assessment

(See ACA Academic / Life Skills)

CHM - Chemistry

	Lecture	Lab	Credit
CHM 115 Concepts in Chemistry	3	0	3

Prerequisites:
Corequisites: CHM 115A or equivalent

This course introduces basic chemical concepts and their applications to daily life for non-science majors. Topics include air pollution, global warming, energy, world of polymers, water and its importance to a technological society, food, drugs, and nuclear chemistry. Upon completion, students should be able to discuss, apply, and appreciate the impact of chemistry on modern society. You must register for both CHM 115 and CHM 115A unless you have received prior credit for one of these classes.

CHM 115A Concepts in Chemistry Laboratory 0 2 1

Prerequisites:
Corequisites: CHM 115 or equivalent

This course is a laboratory for CHM 115. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 115. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical concepts presented in CHM 115. You must register for both CHM 115 and CHM 115A unless you have received prior credit for one of these classes.

CHM 121 Foundations of Chemistry 3 0 3

Prerequisites: MAT 080, MAT 9510 or equivalent
Corequisites: CHM 121A or equivalent

This course is designed for those who have no previous high school chemistry or a grade of C or less in high school chemistry. Topics include matter, structure of the atom, nomenclature, chemical equations, bonding and reactions; mathematical topics include measurements, scientific notation, and stoichiometry. Upon completion, students should be able to demonstrate an understanding of chemical concepts and an ability to solve related problems in subsequent chemistry courses. You must register for both CHM 121 and CHM 121A unless you have received prior credit for one of these classes.

CHM 121A Foundations of Chemistry Laboratory 0 2 1

Prerequisites:
Corequisites: CHM 121 or equivalent

This course is a laboratory for CHM 121. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 121. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 121. You must register for both CHM 121 and CHM 121A unless you have received prior credit for one of these classes.

CHM 130 General, Organic and Biochemistry 3 0 3

Prerequisites: MAT 080, MAT 9510 or equivalent
Corequisites: CHM 130A or equivalent

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This class is recommended for Allied Health programs and you must register for both CHM

130 and CHM 130A unless you have received prior credit for one of these classes.

CHM 130A General, Organic and Biochemistry Lab 0 2 1

Prerequisites:
Corequisites: CHM 130 or equivalent
This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. You must register for both CHM 130 and CHM 130A unless you have received prior credit for one of these classes.

CHM 131 Introduction to Chemistry 3 0 3

Prerequisites: MAT 080, MAT 9510 along with CHM 121 and CHM 121A CHM 1500 or equivalent (High School Algebra and Chemistry)
Corequisites: CHM 131A or equivalent
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. You must register for both CHM 131 and CHM 131A unless you have received prior credit for one of these classes. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 131A Introduction to Chemistry Lab 0 3 1

Prerequisites:
Corequisites: CHM 131 or equivalent
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. You must register for both CHM 131 and CHM 131A unless you have received prior credit for one of these classes. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 132 Organic and Biochemistry 3 3 4

Prerequisites: CHM 131, CHM 1501 or equivalent
Corequisites: None
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 151 General Chemistry I 3 3 4

Prerequisites: MAT 080, MAT 9510 along with CHM 121 and CHM 121A or CHM 1500 or equivalent (High School Algebra and Chemistry)
Corequisites: None
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 152 General Chemistry II 3 3 4

Prerequisites: CHM 151, CHM 1505 or equivalent
Corequisites: None
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 191 Selected Topics in Chemistry 0-1 0-3 1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Student wishing to take any chemistry topics courses must have completed two semesters of chemistry and have instructor permission.

CHM 193 Selected Topics in Chemistry 1-3 0-6 3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Student wishing to take any chemistry topics courses must have completed two semesters of chemistry and have instructor permission.

CHM 251 Organic Chemistry I 3 3 4

Prerequisites: CHM 152, CHM 1506 or equivalent
Corequisites: None
This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252.

CHM 252 Organic Chemistry II 3 3 4

Prerequisites: CHM 251 CHM 2614 or equivalent
Corequisites: None

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.

CHM 293 Selected Topics in Chemistry 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take CHM 293 must have completed three semesters of chemistry and have instructor permission.

CHM - Advancement Studies (CHM 090)

See Pre-College section of this catalog.

CIV - Civil Engineering Technology

(See also SRV Surveying Technology, and EGR Engineering for other Course Descriptions)

Lecture Lab Credit

CIV 110 Statics/Strength of Materials 2 6 4

Prerequisites: MAT 121 or MAT 171
Corequisites: None

This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.

CIV 111 Soils and Foundations 2 3 3

Prerequisites: CIV 110 or MEC 250
Corequisites: None

This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis. compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil.

CIV 125 Civil/Surveying CAD 1 6 3

Prerequisites: CIS 111 SRV 110
Corequisites: None

This course introduces civil/surveying computer-aided drafting (CAD) software. Topics include drawing, editing, and dimensioning commands; plotting; and other related civil/surveying topics. Upon completion, students should be able to produce civil/surveying drawings using CAD software.

CIV 192 Selected Topics in Civil Engineering Technology 1 3 2

Prerequisites: Enrollment in the program or Division Consent
Corequisites: None

This course provides an opportunity to explore topics of current interest in Civil Engineering Technology. Emphasis is placed on subject matter appropriate to Civil Engineering Technology. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CIV 198 Seminar in Civil Engineering Technology 2 3 3

Prerequisites: Enrollment in the Civil Engineering Technology Program
Corequisites: None

This course provides an opportunity to explore topics of current interest in Civil Engineering Technology. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

CIV 210 Engineering Materials 1 3 2

Prerequisites: CIV 110
Corequisites: None

This course covers the behavior and properties of Portland cement and asphaltic concretes and laboratory and field testing. Topics include cementing agents and aggregates; water and admixtures; proportioning, production, placing, consolidation, and curing; and inspection methods. Upon completion, students should be able to proportion concrete mixes to attain predetermined strengths and other properties and perform standard control tests.

CIV 211 Hydraulics and Hydrology 2 3 3

Prerequisites: CIV 110 or MEC 250
Corequisites: None

This course introduces the basic engineering principles and characteristics of hydraulics and hydrology. Topics include precipitation and runoff, fluid statics and dynamics, flow measurement, and pipe and open channel flow. Upon completion, students should be able to analyze and size drainage structures.

CIV 212 Environmental Planning 2 3 3

Prerequisites: CIV 211
Corequisites: None

This course covers water and waste water technology, erosion and sedimentation control, and other related topics. Topics include collection, treatment, and distribution of water and waste water and erosion and sedimentation control law. Upon completion, students should be able to demonstrate knowledge of water and waste water systems and prepare erosion and sedimentation control plans.

CIV 215 Highway Technology 1 3 2

Prerequisites: SRV 111
Corequisites: CIV 211

This course introduces the essential elements of roadway components and design. Topics include subgrade and pavement construction, roadway drawings and details, drainage, superelevation, and North Carolina Department of Transportation Standards. Upon completion, students should be able to use roadway drawings and specifications to develop superelevation, drainage, and general highway construction details.

CIV 220 Basic Structural Concepts 1 3 2

Prerequisites: CIV 110 or MEC 250
Corequisites: None

This course covers the historical perspective of structures as well as types, materials, common elements, and mechanical principles of structures. Topics include basic structure shapes, advantages and disadvantages of standard building materials, application of structural concepts, and other related topics. Upon completion, students should be able to demonstrate an understanding of basic structural concepts.

CIV 221 Steel and Timber Design 2 3 3

Prerequisites: CIV 110 or MEC 250
Corequisites: None

This course introduces the basic elements of steel and timber structures. Topics include the analysis and design of steel and timber beams, columns, and connections and the use of appropriate manuals and codes. Upon completion, students should be able to analyze, design, and draw simple steel and timber structures.

CIV 222 Reinforced Concrete 2 3 3

Prerequisites: CIV 111 and CIV 210
Corequisites: None

This course introduces the basic elements of reinforced concrete and masonry structures. Topics include analysis and design of reinforced concrete beams, slabs, columns, footings, and retaining walls; load-bearing masonry walls; and ACI manuals and codes. Upon completion, students should be able to analyze and design components of a structure using reinforced concrete and masonry elements and utilize appropriate ACI publications.

CIV 230 Construction Estimating 2 3 3

Prerequisites: ARC 111, CIS 110, CIS 111, or EGR 115
Corequisites: None

This course covers quantity take-offs of labor, materials, and equipment and calculation of direct and overhead costs for a construction project. Topics include the interpretation of working drawings and specifications, types of contracts and estimates, building codes, bidding techniques and procedures, and estimating software. Upon completion, students should be able to prepare a detailed cost estimate and bid documents for a construction project.

CIV 240 Project Management 2 3 3

Prerequisites: CIV 230
Corequisites: None

This course introduces construction planning and scheduling techniques and project management software. Topics include construction safety, operation analysis, construction scheduling, construction control systems, claims and dispute resolutions, project records, and documentation. Upon completion, students should be able to demonstrate an understanding of the roles of construction project participants, maintain construction records, and prepare construction schedules.

CIV 250 Civil Engineering Tech Project 1 3 2

Prerequisites: Successful completion of three semesters of the Civil Engineering Technology program
Corequisites: None

This course includes an integrated team approach to civil engineering technology projects. Emphasis is placed on project proposal, site selection, analysis/design of structures, construction material selection, time and cost estimating, planning, and management of a project. Upon completion, students should be able to apply team concepts, prepare estimates, submit bid proposals, and manage projects.

COM - Communication (Speech)

Lecture Lab Credit

COM 110 Introduction to Communication 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal, group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. Students may be required to prepare and deliver oral reports in public contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.*

COM 111 Voice and Diction I 3 0 3

Prerequisites:
Corequisites: None

This course provides guided practice in the proper production of speech. Emphasis is placed on improving speech, including breathing. articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective natural speech in various contexts. Students will analyze regional and international speech differences and standards.

COM 112 Voice and Diction II 3 2 4

Prerequisites: COM 111
Corequisites: None

This course provides continued practice with articulation, pronunciation, expressiveness, and vocal quality while building skills for adapting the voice to different situations and performance materials. Topics include individual articulation, fluency, quality, and performance problems; specific broadcast/public speaking materials and styles; and Standard English grammar and pronunciation for career success. Upon completion, students should be able to adapt voice and pronunciation style to various situations and use Standard English dialect, grammar, and pronunciation.

COM 120 Interpersonal Communication 3 0 3

Prerequisites:
Corequisites: None

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. *This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in speech/communication.*

COM 140 Intercultural Communication 3 0 3

Prerequisites:
Corequisites: None

This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how people send and

receive messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside their primary culture.

COM 231 Public Speaking 3 0 3

Prerequisites:
Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. Special emphasis may be placed on business, health and education contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.*

COM 232 Election Rhetoric 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of communication styles and topics characteristic of election campaigns. Topics include election speeches, techniques used in election campaigns, and election speech topics. Upon completion, students should be able to identify and analyze techniques and styles typically used in election campaigns.

COM 233 Persuasive Speaking 3 0 3

Prerequisites: ENG 112 or ENG 113 or permission of Program Chair
Corequisites: None

This course introduces theory and history of persuasive speaking, covering critical thinking skills in analyzing problems, assessing solutions, and communicating the information to an audience. Emphasis is placed on analysis, evidence, reasoning, and library and field research used to enhance persuasive public speaking skills. Upon completion, students should be able to apply the principles of persuasive speaking in a public setting. Students will demonstrate an understanding of the complexities of social persuasion inherent in mass media, ethics, propaganda, political and public information campaigns.

COM 251 Debate I 3 0 3

Prerequisites:
Corequisites: None

This course introduces the principles of debate. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to use research skills and logic in the presentation of ideas within the context of formal debate.

CET - Computer Engineering Technology

See also ELN Electronics and ELC Electricity for other courses.

	Lecture	Lab	Credit
CET 111 Computer Upgrade/Repair I	2	3	3

Prerequisites:
Corequisites: None

This course is the first of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include safety practices, CPU/memory/bus identification, disk subsystem, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CET 211 Computer Upgrade/Repair II 2 3 3

Prerequisites: CET 111
Corequisites: None

This course is the second of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include resolving resources conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

CIS / CSC / NET - Computer Information Systems

	Lecture	Lab	Credit
CIS 103 Data Entry Operations	3	2	4

Prerequisites: CIS 111 and OST 131
Corequisites: None

This course covers computer center organization and operation, duties of data entry operators, data entry techniques and equipment, and data entry terminology. Emphasis is placed on speed and accuracy requirements for data entry operations using microcomputers. Upon completion, students should be able to accurately and quickly enter data, use correct terminology and equipment, and carry out all appropriate duties.

CIS 110 Introduction to Computers 2 2 3

Prerequisites:
Corequisites: None

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course uses Microsoft Office Professional applications (Word, Excel, Access and PowerPoint) and requires hands-on lab sessions with a PC system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.* **NOTE:** Students who have little or no keyboarding skills should consider taking OST 131X prior to or in conjunction with this course.

CIS 111 Basic PC Literacy 1 2 2

Prerequisites:
Corequisites: None

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills. This course uses Microsoft Office Professional applications (Word, Excel, and PowerPoint) and requires hands-on lab sessions with a PC system. **NOTE:** Students who have little or no keyboarding skills should consider taking OST 131X prior to or in conjunction with this course.

CIS 112 Windows 1 2 2

Prerequisites:
Corequisites: None

This course includes the fundamentals of the Windows' software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows' software in an office environment.

CIS 115 Introduction to Programming and Logic 2 2 3

Prerequisites: MAT 070
Corequisites: None

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. A programming language such as QBASIC will be used to illustrate concepts and programming logic. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CIS 116 Introduction to PC Application Development 2 3 3

Prerequisites: CIS 110 or (CIS 111 and CIS 154)
Corequisites: None

This course provides an introductory study of the principles of application development and end-user interface design principles. Emphasis is placed on tables, file management, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design and program a PC application at the introductory level. This course uses Microsoft Office Professional applications (WORD, EXCEL, ACCESS, & PowerPoint) making use of MACROS to program functions and requires hands-on lab sessions with a PC system.

CIS 120 Spreadsheet I 2 2 3

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts. This course assumes some familiarity with a PC and spreadsheets, and will utilize EXCEL software.

CIS 121 User Support and Software Evaluation 1 4 3

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course provides an opportunity to evaluate software and hardware and make recommendations to meet end-user needs. Emphasis is placed on software and hardware evaluation, installation, training, and support. Upon completion, students should be able to present proposals and make hardware and software recommendations based on their evaluations.

CIS 130 Survey of Operating Systems 2 3 3

Prerequisites:
Corequisites: None

The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance. Selected operating systems will be studied.

CIS 144 Operating System - DOS 2 2 3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for DOS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a DOS environment.

CIS 147 Operating System - Windows 2 2 3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for a Windows operating system. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a Windows environment.

CIS 148 Operating System - Windows NT 2 2 3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for the Windows NT operating system. Topics include hardware management, file and memory management, system configuration/optimization, networking options, and utilities. Upon completion, students should be able to perform operating system functions at the single/multi-user support level in a Windows NT environment.

CIS 149 Operating System - MVS 2 2 3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for MVS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions at the support level in an MVS environment.

CIS 152 Database Concepts and Applications 2 2 3

Prerequisites: CIS 110 or CIS 111, or CIS 115
Corequisites: None

This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices. A representative database software will be used capable of SQL.

CIS 153 Database Applications 2 2 3

Prerequisites: CIS 152
Corequisites: None

This course covers advanced database functions continued from CIS 152. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screen, and reports representative of industry requirements.

CIS 154 Database Utilization 1 2 2

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course introduces basic database functions and uses. Emphasis is placed on database manipulation with queries, reports, forms, and some table creation. Upon completion, students should be able to enter and manipulate data from the end-user mode. Hands-on experience in using a data base software (such as ACCESS) on a PC is utilized for demonstrating concepts and performing lab assignments.

CIS 157 Database Programming I 2 2 3

Prerequisites: CIS 130, CIS 152, and CIS 153
Corequisites: None

This course is designed to develop programming proficiency in a selected DBMS. Emphasis is placed on the Data Definition Language (DDL) and Data Manipulation Language (DML) of the DBMS as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports representative of industry requirements.

CIS 163 Prog Interfaces Internet 2 2 3

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course creates interactive multimedia applications and applets for the Internet using web-specific languages. Emphasis is placed on audio, video, graphic, and network resources and various file formats. Upon completion, students should be able to create an interactive multimedia application or applet for the Internet.

CIS 169 Business Presentations 1 2 2

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text and graphics. Upon completion, students should be able to design and demonstrate an effective presentation.

CIS 172 Introduction to the Internet 2 3 3

Prerequisites:
Corequisites: None

This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, list servers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools. Also, topics include Java, the World Wide Web, news groups, and homepages.

CIS 173 Network Theory 2 2 3

Prerequisites: NET 110
Corequisites: None

This course examines Token Ring, Ethernet, and Arcnet networks. Topics include LAN topologies and design; cable characteristics; cable, interface cards, server, and client installation; basic management techniques; linking networks; and troubleshooting LAN problems. Upon completion, students should be able to install both hardware and software for a small client/server LAN and troubleshoot common network problems.

CIS 174 Network System Manager I 2 2 3

Prerequisites:
Corequisites: None

This course covers effective network management. Topics include network file system design and security, login scripts and user menus, printing services, e-mail, and backup. Upon completion, students should be able to administer an office network system.

CIS 175 Network Management I 2 2 3

Prerequisites:
Corequisites: None

This course covers fundamental network administration and system management. Topics include accessing and configuring basic network services, managing directory services, and using network management software. Upon completion, students should be able to apply system administrator skills in developing a network management strategy.

CIS 184 TCP/IP and NFS 2 2 3

Prerequisites:CIS 175 and CIS 174 and NET 110
Corequisites: None

This course focuses on installation and configuration of TCP/IP on a network. Topics include an overview of TCP/IP, SNMP, application of programming interfaces, Network File System (NFS), IP addresses, and routing and tunneling. Upon completion, students should be able to install, monitor, manager, diagnose, and troubleshoot common problems in IP networks and internetworks.

CIS 193 Selected Topics in Information Systems 1-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CIS 196 Seminar in Information Systems 0-1 0-3 1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

CIS 211 AS/400 Maintenance and Operations 2 3 3

Prerequisites:
Corequisites: None

This course is designed to cover the fundamental AS/400 System operations, screens, utilities, and terminology. Topics include: an introduction to the AS/400 operating system, security, backup and restore, handling spooled files, using command and menus to create and manipulate objects. Upon completion, students should be able to: use utilities, create libraries, save and restore files, monitor and control jobs and queues, and know AS/400 operations.

CIS 215 Hardware Installation and Maintenance 2 3 3

Prerequisites: CIS 110, CIS 111, or CIS 115
Corequisites: None

This course covers the basic hardware of a personal computer, including operations and interactions with software. Topics include component identification, the memory system, peripheral installation and configuration, preventive maintenance, and diagnostics and repair. Upon completion, students should be able to select appropriate computer equipment, upgrade and maintain existing equipment, and troubleshoot and repair nonfunctioning personal computers.

CIS 218 Introduction to Artificial Intelligence 3 0 3

Prerequisites: CIS 130
Corequisites: None

This course introduces artificial intelligence. Emphasis is placed on expert systems. Upon completion, students should be able to discuss the basic concepts and procedures in the development of artificial intelligence systems.

CIS 219 Advanced PC Application Development 2 3 3

Prerequisites: CIS 115 and CIS 116
Corequisites: None

This course provides an advanced study of the principles of application development and end-user interface design principles. Emphasis is placed on advanced arrays/tables, file management, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design and program a PC application at the advanced level. Students will participate in the joint development of a project that illustrates all phases of project development, including documentation.

CIS 244 Operating System - AS/400 2 3 3

Prerequisites:
Corequisites: None

This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment. The students will develop CL programs on CPCC's AS/400 using SEU and PDM, CALL interactive jobs, submit batch jobs, handle messages, monitor for errors, create and use Database Physical and Logical files, and work with spool files.

CIS 245 Operating System - Multi-User 2 3 3

Prerequisites:
Corequisites: None

This course includes operating systems concepts for multi-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions in a multi-user environment.

CIS 247 Operating System - DOS/VSE 2 3 3

Prerequisites:
Corequisites: None

This course includes operating systems concepts for DOS/VSE operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in a DOS/VSE environment.

CIS 274 Network System Manager II 2 2 3

Prerequisites: CIS 174
Corequisites: None

This course is a continuation of CIS 174 focusing on advanced network management, configuration, and installation. Emphasis is placed on server configuration files, startup procedures, server protocol support, memory and performance concepts, and management and maintenance. Upon completion, students should be able to install and upgrade networks and servers for optimal performance.

CIS 275 Network Management II 2 2 3

Prerequisites: CIS 175
Corequisites:

This course is a continuation of CIS 175 focusing on advanced enterprise networks. Topics include directory service tree planning, management distribution and protection, improving network security, auditing the network, printing, networking, and system administration of an Internet node. Upon completion, students should be able to manage client services and network features and optimize network performance.

CIS 286 Systems Analysis and Design 3 0 3

Prerequisites: CIS 115
Corequisites: None

This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques. Other introductory programming language courses can be used as a prerequisite in lieu of CIS 115.

CIS 287 Network Support 2 2 3

Prerequisites: CIS 274 or CIS 275
Corequisites: None

This course provides experience using CD ROM and on-line research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation, and network printing. Upon completion, students should be able to analyze, diagnose, research, and fix network hardware problems.

CIS 288 Systems Project 1 4 3

Prerequisites: CSC 244 and CIS 286
Corequisites: None

This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation. Students will implement a team project using VSAM files, the current COBOL language compiler, and the CICS teleprocessing monitor software.

CIS 289 Operations Project 2 2 3

Prerequisites: CIS 247 and CSC 135
Corequisites: None

This course provides an opportunity to complete a significant operations project from the design phase through implementation of a business computer application. Emphasis is

placed on the use of VSE/Power[a] commands, JCL for tape and VSAM files, and responding to system console messages using vendor manuals. Upon completion, students should be able to complete a multiple-job sequenced project including JCL, commands, data, and operator responses.

CSC 120 Computing Fundamentals I 3 2 4

Prerequisites: MAT 080 or MAT 090
Corequisites: None

This course provides the essential foundation for the discipline of computing and a program of study in computer science, including the role of the professional. Topics include algorithm design, data abstraction, searching and sorting algorithms, and procedural programming techniques. Upon completion, students should be able to solve problems, develop algorithms, specify data types, perform sorts and searches, and use an operating system. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CSC 130 Computing Fundamentals II 3 2 4

Prerequisites: CSC 120
Corequisites: None

This course provides in-depth coverage of the discipline of computing and the role of the professional. Topics include software design methodologies, analysis of algorithm and data structures, searching and sorting algorithms, and file organization methods. Upon completion, students should be able to use software design methodologies and choice of data structures and understand social/ethical responsibilities of the computing professional. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CSC 131 Assembly Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces assembly language programming with emphasis on program efficiency. Topics include registers, instruction, data types, memory layout, I/O, bit manipulation, debugging, and code considerations. Upon completion, students should be able to create and modify program modules written in an assembly language.

CSC 133 C Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces computer programming using the C programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays tables, pointers, and other related topics. Upon completion, students should be able to design, code, test, and debug C language programs.

CSC 134 C++ Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CSC 135 COBOL Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces computer programming using the COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug COBOL language programs.

CSC 136 FORTRAN Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces computer programming using the FORTRAN programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, subprograms, and other related topics. Upon completion, students should be able to design, code, test, and debug FORTRAN language programs.

CSC 137 Pascal Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces structured computer programming using the Pascal programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Pascal language programs.

CSC 138 RPG Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces computer programming using the RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug RPG language programs. Emphasis will be placed on writing structured programs which generate reports, including control levels, using an AS/400 midrange computer.

CSC 139 Visual BASIC Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs.

CSC 143 Object-Oriented Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces the concepts of object-oriented programming. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, test, debug, and implement objects at the application level using the appropriate environment.

CSC 144 AS/400 CL Programming 2 3 3

Prerequisites: CIS 211 and CIS 115
Corequisites: None

This course introduces computer programming using the CL

programming language. Topics include CL command structure, command parameters, creating CL programs, manipulating variables, writing commands to control jobs and workflow, and other related topics. Upon completion, students should be able to design, code, test, and debug CL programs.

CSC 148 JAVA Programming 2 3 3

Prerequisites:
Corequisites: None

This course introduces computer programming using the JAVA language. Topics include selection, iteration, arithmetic and logical operators, classes, inheritance, methods, arrays, user interfaces, basic applet creations and other related topics. Upon completion, students should be able to design, code, test, and debug JAVA language programs.

CSC 193 Selected Topics in Information Systems 0-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CSC 196 Seminar in Information Systems 0-1 0-3 1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

CSC 220 Machine Implementation of Algorithm 3 2 4

Prerequisites: CSC 120
Corequisites: MAT 271

This course covers the organization and operation of real computer systems at the assembly language level. Topics include mapping of statements and constructs onto machine instruction sequences, internal data types and structures representation, numerical computation, and iterative approximation methods. Upon completion, students should be able to analyze computer system organization, implement procedural language elements, and describe the programming language translation process.

CSC 234 Advanced C++ 2 3 3

Prerequisites: CSC 134
Corequisites: None

This course is a continuation of CSC 134 using C++ with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. Also, this course introduces event-driven computer programming using a Visual C++ programming language.

CSC 235 Advanced COBOL 2 3 3

Prerequisites: CSC 135
Corequisites: None

This course is a continuation of CSC 135 using COBOL with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 236 Advanced FORTRAN 2 3 3

Prerequisites: CSC 136
Corequisites: None

This course is a continuation of CSC 136 using FORTRAN with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 237 Advanced Pascal 2 3 3

Prerequisites: CSC 137
Corequisites: None

This course is a continuation of CSC 137 using Pascal with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 238 Advanced RPG 2 3 3

Prerequisites: CSC 138
Corequisites: None

This course is a continuation of CSC 138 using RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. Emphasis will be placed on screen design fundamentals, defining screens using DDS and SDA, and incorporating subfiles in programs using an AS/400 midrange computer.

CSC 239 Advanced Visual BASIC 2 3 3

Prerequisites: CSC 139
Corequisites: None

This course is a continuation of CSC 139 using Visual BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 244 CICS 4 2 5

Prerequisites: CSC 235
Corequisites: None

This course provides an in-depth study of interactive transaction processing using command level CICS. Topics include pseudoconversational programming, basic mapping support, control tables, storage areas, file maintenance, screen design, and EDF debugging. Upon completion, students should be able to design, code, test, debug, and document command level COBOL programs for menuing, record processing, browsing, and temporary storage. Additional topics include multiple screen control (paging), multiple map control, user-defined symbolic maps, extended attributes, and VSAM variable-length records.

NET 110 Data Communication/ Networking 2 2 3

Prerequisites:
Corequisites: None

This course introduces data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

NET 125 Routing and Switching I 1 4 3

Prerequisites: None
Corequisites: None

This course introduces the OSI model, network topologies, IP addressing, and subnet masks, simple routing techniques, and basic switching terminology. Topics include the basic functions of the seven layers of the OSI model, different classes of IP addressing and subnetting, router login scripts. Upon completion, students should be able to list the key internetworking functions of the OSI Networking Layer and how they are performed in a variety of router types. This is the first course in the Cisco Networking Academy Certificate.

NET 126 Routing and Switching II 1 4 3

Prerequisites: NET 125
Corequisites: None

This course introduces router configurations, router protocols, switching methods, and hub terminology. Topics include the basic flow control methods, router startup commands, manipulation of router configuration files, IP and data link addressing. Upon completion, students should be able to prepare the initial router configuration files, as well as enable, verify, and configure IP addresses. This is the second course in the Cisco Networking Academy Certificate.

NET 225 Adv. Router and Switching I 1 4 3

Prerequisites: NET 126
Corequisites: None

This course introduces advanced router configuration, advanced LAN switching theory and design, VLANs, Novell IPX, and threaded case studies. Topics include router elements and operations, adding routing protocols to a configuration, monitoring IPX operations on the router, LAN segmentation, and advanced switching methods. Upon completion, students should be able to describe LAN and network segmentation with bridges, routers and switches and describe a virtual LAN. This is the third course in the Cisco Networking Academy Certificate.

NET 226 Adv. Router and Switching II 1 4 3

Prerequisites: NET 225
Corequisites: None

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for networking routing problems, identify ISDN protocols, channels, and function groups, desribe the Spanning Tree protocol. This is the fourth course in the Cisco Networking Academy Certificate.

NET 260 Internet Dev & Support 3 0 3

Prerequisites: NET 110
Corequisites: None

This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization. Hands-on experience in the setup and management of internet server hardware and software is included.

Computer Operations

(See CIS/CSC/NET Computer Information Systems)

Computer Programming

(See CIS/CSC/NET Computer Information Systems)

Computer Science

(See CIS/SCS/NET Computer Information Systems)

Cooperative Education

		Lecture	Lab	Clinic	Credit
COE 110	**World of Work**	1	0	0	1

Prerequisites:
Corequisites:

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

COE 111 Co-op Work Experience I 0 0 10 1

Prerequisites:
Corequisites:

This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 112 Co-op Work Experience I 0 0 20 2

Prerequisites:
Corequisites:

This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 113 Co-op Work Experience I 0 0 30 3

Prerequisites:
Corequisites:

This course provides work experience with a college approved employer in an area related to the Student's program

of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 114 Co-op Work Experience I 0 0 40 4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 115 Work Experience Seminar I 1 0 0 1

Prerequisites:
Corequisites: COE 111, COE 112, COE 113, or COE 114
Course description related to individual program.

COE 121 Co-op Work Experience II 0 0 10 1

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 122 Co-op Work Experience II 0 0 20 2

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 123 Co-op Work Experience II 0 0 30 3

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 124 Co-op Work Experience II 0 0 40 4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 125 Work Experience Seminar II 1 0 0 1

Prerequisites:
Corequisites: COE 121, COE 122, COE 123, or COE 124
Course description related to individual program.

COE 131 Co-op Work Experience III 0 0 10 1

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 132 Co-op Work Experience III 0 0 20 2

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 133 Co-op Work Experience III 0 0 30 3

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 134 Co-op Work Experience III 0 0 40 4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 211 Co-op Work Experience IV 0 0 10 1

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 212 Co-op Work Experience IV 0 0 20 2

Prerequisites:
Corequisites:
This course provides work experience with a college

approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 213 Co-op Work Experience IV 0 0 30 3

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 214 Co-op Work Experience IV 0 0 40 4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 221 Co-op Work Experience V 0 0 10 1

Prerequisites:
Corequisites:
This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 222 Co-op Work Experience V 0 0 20 2

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

CJC - Criminal Justice

Lecture Lab Credit

CJC 111 Introduction to Criminal Justice 3 0 3

Prerequisites:
Corequisites: None
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

CJC 112 Criminology 3 0 3

Prerequisites:
Corequisites: None
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 Juvenile Justice 3 0 3

Prerequisites:
Corequisites: None
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 114 Investigative Photography 1 2 2

Prerequisites:
Corequisites: None
This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photography and proper film exposure and development techniques.

CJC 120 Interviews/Interrogations 1 2 2

Prerequisites:
Corequisites: None
This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforcement Operations 3 0 3

Prerequisites:
Corequisites: None
This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.

CJC 122 Community Policing 3 0 3

Prerequisites:
Corequisites: None
This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems, and compare community policing to traditional policing.

CJC 131 Criminal Law 3 0 3

Prerequisites:
Corequisites: None
This course covers the history/evolution/principles and con-

temporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 Court Procedure and Evidence 3 0 3

Prerequisites:
Corequisites: None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 Corrections 3 0 3

Prerequisites:
Corequisites: None

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

CJC 212 Ethics and Community Relations 3 0 3

Prerequisites:
Corequisites: None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 Substance Abuse 3 0 3

Prerequisites:
Corequisites: None

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC 214 Victimology 3 0 3

Prerequisites:
Corequisites: None

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

CJC 215 Organization and Administration 3 0 3

Prerequisites:
Corequisites: None

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

CJC 221 Investigative Principles 3 2 4

Prerequisites:
Corequisites: None

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222 Criminalistics 3 0 3

Prerequisites:
Corequisites: None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 223 Organized Crime 3 0 3

Prerequisites:
Corequisites: None

This course introduces the evolution of traditional and nontraditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

CJC 231 Constitutional Law 3 0 3

Prerequisites:
Corequisites: None

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CJC 232 Civil Liability 3 0 3

Prerequisites:
Corequisites: None

This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

CJC 233 Correctional Law 3 0 3

Prerequisites:
Corequisites: None

This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

CJC 241 Community-Based Corrections 3 0 3

Prerequisites:
Corequisites: None

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

CJC 251 Forensic Chemistry I 3 2 4

Prerequisites:
Corequisites: None

This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

CUL - Culinary

Lecture Lab Credit

CUL 110 Sanitation and Safety 2 0 2

Prerequisites:
Corequisites:

This course introduces the basic principles of sanitation and safety and their relationship to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of sanitation and safety procedures in the hospitality industry.

CUL 120 Purchasing 2 0 2

Prerequisites:
Corequisites: None

This course covers purchasing for hotels and restaurants. Emphasis is placed on procurement, yield tests, inventory control, specification, planning, forecasting, market trends, terminology, cost controls, pricing, and food service ethics. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

CUL 120A Purchasing Lab 0 2 1

Prerequisites:
Corequisites: CUL 120

This course is a laboratory to accompany CUL 120. Emphasis is placed on practical experiences that enhance the materials presented in CUL 120. Upon completion, students should be able to demonstrate practical applications of purchasing within the hospitality industry.

CUL 135 Food and Beverage Service 2 0 2

Prerequisite
Corequisites None

This course covers the practical skills and knowledge for effective food and beverage service in a variety of settings. Topics include reservations, greeting and service of guests, styles of service, handling complaints, and sales and merchandising. Upon completion, students should be able to demonstrate competence in human relations and technical skills required in the service of foods and beverages.

CUL 135A Food and Beverage Service Lab 0 2 1

Prerequisites:
Corequisites: CUL 135

This course is a laboratory to accompany CUL 135. Emphasis is placed on practical experiences that enhance the materials presented in CUL 135. Upon completion, students should be able to demonstrate practical applications of skills required in the service of foods and beverages.

CUL 140 Basic Culinary Skills 2 6 5

Prerequisites:
Corequisites: CUL 110

This course introduces the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on recipe conversion, measurements, terminology, knife skills, safe food handling, cooking methods, flavorings, seasonings, stocks/sauces/soups, and other related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the food service industry. Guest service may be a course component.

CUL 160 Baking I 1 4 3

Prerequisites:
Corequisites:

This course covers basic ingredients, weights and measures, baking terminology, and formula calculations. Topics include yeast-raised products, quick breads, pastry dough, various cakes and cookies, and appropriate filling and finishing techniques. Upon completion, students should be able to prepare and evaluate baked products.

CUL 170 Garde Manger I 1 4 3

Prerequisites:
Corequisites:

This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to lay out a basic cold food display and exhibit an understanding of the cold kitchen and its related terminology.

CUL 180 International and American Regional Cuisine 1 8 5

Prerequisites: CUL 240, CUL 110
Corequisites: CUL 110

This course provides practical experience in the planning, preparation, and service of representative foods from different countries and regions of America. Emphasis is placed on eating habits, indigenous foods and customs, nutritional concerns, and traditional equipment. Upon completion, students should be able to research and execute international and domestic menus. Guest service may be a course component.

CUL 214 Wine Appreciation 1 2 2

Prerequisites:
Corequisites: None
This course provides comprehensive and detailed information about wine from all the major wine producing countries. Emphasis is placed on the history of wine, production characteristics, laws, and purchasing and storing requirements. Upon completion, students should be able to determine what wines compliment varies cuisine and particular tastes.

CUL 240 Advanced Culinary Skills 1 8 5

Prerequisites: CUL 140
Corequisites: None
This course is a continuation of CUL 140. Emphasis is placed on meat fabrication and butchery; vegetable, starch, and protein cookery; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items. Guest service may be a course component.

CUL 260 Baking II 1 4 3

Prerequisites: CUL 160
Corequisites: None
This course is a continuation of CUL 160. Topics include specialty breads, pastillage, marzipan, chocolate, pulled-sugar, confections, classic desserts, pastries, and cake decorating. Upon completion, students should be able to demonstrate pastry preparation and plating, cake decorating, and show-piece production skills.

CUL 270 Garde Manger II 1 4 3

Prerequisites: CUL 170
Corequisites: None
This course is a continuation of CUL 170. Topics include pâtés, terrines, galantines, ice and tallow carving, chaud-froid/aspic work, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering function to include a classical cold buffet with appropriate show pieces.

CUL 280 Pastry and Confections 1 4 3

Prerequisites: CUL 260, CUL 110
Corequisites: CUL 110
This course covers the operations of the pastry shop, emphasizing advanced techniques in the production of continental and classical pastries. Topics include advanced work in French pastries, hot and cold desserts, and decorative display pieces. Upon completion, students should be able to plan, execute, and evaluate dessert platters, individual plated desserts, and show pieces.

CYT - Cytotechnology

		Lecture	Lab	Clinic	Credit
CYT 210	**Introduction to Clinical Cytology**	4	0	0	4

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 212, CYT 214 and CYT 216
This course provides an overview of the fundamentals of cell biology, basic histology, and pathology of tumors as they relate to clinical cytology. Topics include basic sciences, as well as inflammatory processes, morphology and classification of microorganisms, and basic clinical cytology terminology. Upon completion, students should be able to discuss the basic histologic and pathologic concepts common to the diagnostic cytology of all body systems.

CYT 212	**Introduction to Cytologic Techniques**	4	0	0	4

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 210, CYT 214 and CYT 216
The course covers care and use of the light microscope and histologic and cytologic specimen preparation techniques and equipment. Topics include laboratory safety, chemical hygiene, universal precautions, and fundamentals of staining and fixation. Upon completion, students should be able to discuss and demonstrate the care and use of the microscope and discuss basic concepts of staining and fixation

CYT 214	**Gynecologic Cytology**	8	12	0	14

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 210, CYT 212 and CYT 216
This course covers gynecologic cytology, including normal anatomy, physiology, histology, cytology, malignancies, and treatment modalities. Topics include hormonal cytology, microorganisms and their manifestations, precursor lesions, and carcinomas. Upon completion, students should be able to demonstrate competence in cytologic criteria and gynecologic cytology.

CYT 216	**Clinical and Diagnostic Interpretation I**	4	0	0	4

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 210, CYT 212 and CYT 214
This course covers cytologic criteria for representative cytologic and histologic specimens. Emphasis is placed on the cytology and histology of the female reproductive system. Upon completion, students should be able to demonstrate competence in the application of cytologic criteria for gynecologic cytology.

CYT 220	**Non-Gynecologic Cytology**	8	8	0	12

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 222, CYT 224 and CYT 226
This course covers non-gynecologic cytology and fine needle aspiration biopsy of all body sites. Topics include the anatomy, histology, pathology, and cytopathology of the respiratory system, alimentary canal, body cavities, urinary tract, and breast and aspiration cytology. Upon completion, students should be able to demonstrate competence in the use of cytologic criteria as applied to non-gynecologic cytology.

CYT 222	**Cytopreparation Techniques**	2	0	0	2

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 220, CYT 224 and CYT 226
This course covers the fundamental principles of cytopreparation for histologic and cytologic specimens. Emphasis is placed on techniques related to cytopreparation. Upon completion, students should be able to demonstrate competence in the various cytopreparation methods.

CYT 224	**Gynecologic Cytology Clinical Practicum I**	0	0	12	4

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 220, CYT 222 and CYT 226
This course provides supervised clinical experience in gynecologic cytology procedures. Emphasis is placed on cytologic diagnosis by routine screening methods. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 226 Clinical and Diagnostic Interpretation II 4 0 0 4

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 220, CYT 222 and CYT 224
This course covers cytologic criteria for representative cytologic and histologic specimens. Emphasis is placed on the cytology and histology of all areas of non-gynecologic cytology and fine needle aspiration biopsy. Upon completion, students should be able to demonstrate competence in the use of cytologic criteria for non-gynecologic cytology and fine needle aspiration biopsy.

CYT 230 Non-Gynecologic Cytologic Clinical Practicum 0 0 6 2

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 232, CYT 234, CYT 236 and CYT 238
This course provides supervised clinical experience in non-gynecologic cytologic procedures. Emphasis is placed on differential diagnosis in non-gynecologic cytology. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 232 Clinical Cytotechnology Practicum 0 0 3 1

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 234, CYT 236 and CYT 238
This course provides supervised clinical experience in a variety of clinical settings. Emphasis is placed on teamwork in the clinical setting with utilization of cytodiagnostic and cytopreparation skills. Upon completion, students should be able to function effectively as an entry-level cytotechnologist.

CYT 234 Gynecologic Cytology 0 0 9 3

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 232, CYT 236 and CYT 238
This course provides supervised clinical experience in gynecologic cytologic procedures. Emphasis is placed on the development of solid working criteria in routine cytology screening. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 236 Cytology Literature Review 1 0 0 1

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 232, CYT 234 and CYT 238
This course covers the development of a scientific, cytology-oriented research paper. Emphasis is placed on the development and presentation of a research proposal utilizing scientific methods, literature reviews, and interpretation of data. Upon completion, students should be able to prepare a scientific research paper based on the scientific method.

CYT 238 Cytotechnology Professional Issues 2 0 0 2

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 232, CYT 234 and CYT 236
This course covers the essentials of laboratory organization and management, the fundamentals of laboratory accreditation, and basic principles and applications of immunocytochemistry. Emphasis is placed on discussions of articles from current cytology journals with applications to the practice of cytopathology.

DAN - Dance

	Lecture	Lab	Credit

DAN 110 Dance Appreciation 3 0 3

Prerequisites:
Corequisites: None
This course for non-dance majors surveys diverse dance forms and the religious and cultural values that shape them. Topics include dances from Europe, Africa, Asia, and America. Upon completion, students should be able to demonstrate an understanding of the diverse forms and values that dance embraces. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DAN 121 Tap Dance I 0 3 1

Prerequisites:
Corequisites: None
This course provides the fundamentals of elementary tap dance technique. Emphasis is placed on sounds, rhythms, terminology, and body placement. Upon completion, students should be able to demonstrate significant progress in elementary tap skills.

DAN 122 Tap Dance II 0 3 1

Prerequisites: DAN 121
Corequisites: None
This course is the second in a series and provides an expansion of elementary tap dance techniques. Emphasis is placed on weight shifts, turns, and more complex rhythm patterns. Upon completion, students should be able to demonstrate a moderate mastery of elementary/intermediate tap dance skills.

DAN 124 Jazz Dance I 0 3 1

Prerequisites:
Corequisites: None
This course provides the fundamentals of elementary jazz technique. Emphasis is placed on body placement, stretching, jazz movements, and syncopated rhythms. Upon completion, students should be able to demonstrate significant progress in fundamental jazz dance technique and simple center combinations.

DAN 125 Jazz Dance II 0 3 1

Prerequisites: DAN 124
Corequisites: None
This course is the second in a series and provides an expansion of elementary/intermediate jazz dance. Emphasis is placed on "Cool Jazz," theatrical jazz styles, and extended sequences of movement (routines). Upon completion, students should be able to demonstrate moderate mastery of elementary/intermediate-level jazz dance and be able to perform routines.

DAN 127 Dance for Musical Theatre 0 4 2

Prerequisites:
Corequisites: None
This course is designed to teach alignment fundamentals and different styles of jazz, tap, and folk dance used in musical theatre performances. Emphasis is placed on stretching, ballet barre, jazz, tap, and folk dance fundamentals. Upon completion, students should be able to demonstrate proper posture and fundamental techniques of jazz, tap, and folk dance.

DAN 128E Dance Sources I 1 2 2

Prerequisites:
Corequisites: None
This course is designed to introduce and expand the funda-

mentals of a specific ethnic/national dance form and its historical and social background. Emphasis is placed on the historical and social background of culture, basic steps, fundamental forms, and themes of specific dances. Upon completion, students should be able to demonstrate in performance the types and styles of dances characteristic of a specific culture/nation. DAN 128E is African dancing I.

DAN 128I Dance Sources I 1 2 2

Prerequisites:
Corequisites: None
This course is designed to introduce and expand the fundamentals of a specific ethnic/national dance form and its historical and social background. Emphasis is placed on the historical and social background of culture, basic steps, fundamental forms, and themes of specific dances. Upon completion, students should be able to demonstrate in performance the types and styles of dances characteristic of a specific culture/nation. DAN 128I is East Indian dancing I.

DAN 128S Dance Sources I 1 2 2

Prerequisites:
Corequisites: None
This course is designed to introduce and expand the fundamentals of a specific ethnic/national dance form and its historical and social background. Emphasis is placed on the historical and social background of culture, basic steps, fundamental forms, and themes of specific dances. Upon completion, students should be able to demonstrate in performance the types and styles of dances characteristic of a specific culture/nation. DAN 128S is Spanish dancing I.

DAN 129E Dance Sources II 1 2 2

Prerequisites: DAN 128E
Corequisites: None
This course covers a specific ethnic/national dance form and its historical and cultural background. Emphasis is placed on basic steps, forms, and themes of specific dances and their social contexts. Upon completion, students should be able to demonstrate by performance the types and styles of dance of a specific culture/nation. DAN 129E is African dancing II.

DAN 129I Dance Sources II 1 2 2

Prerequisites: DAN 128I
Corequisites: None
This course covers a specific ethnic/national dance form and its historical and cultural background. Emphasis is placed on basic steps, forms, and themes of specific dances and their social contexts. Upon completion, students should be able to demonstrate by performance the types and styles of dance of a specific culture/nation. DAN 129I is East Indian dancing II.

DAN 129S Dance Sources II 1 2 2

Prerequisites: DAN 128S
Corequisites: None
This course covers a specific ethnic/national dance form and its historical and cultural background. Emphasis is placed on basic steps, forms, and themes of specific dances and their social contexts. Upon completion, students should be able to demonstrate by performance the types and styles of dance of a specific culture/nation. DAN 129S is Spanish dancing II.

DAN 130 Ballet I 0 4 2

Prerequisites:
Corequisites: None
This course introduces the elementary elements of ballet technique. Emphasis is placed on simple positions, body placement, classroom discipline, and the Dalcroze method of counting music. Upon completion, students should be able to recognize the names and rhythms of basic steps and be able to perform those movements at barre and in center.

DAN 131 Ballet II 0 4 2

Prerequisites: DAN 130
Corequisites: None
This course is the second in a series of elementary ballet techniques. Emphasis is placed on motor skill development, elementary allegro steps, and body positions. Upon completion, students should be able to exhibit moderate technical skill in elementary ballet.

DAN 132 Intermediate Ballet I 0 4 2

Prerequisites: DAN 131
Corequisites: None
This course introduces the intermediate elements of ballet technique. Emphasis is placed on intermediate steps, memory of set patterns, and progress in skills, especially turns and allegros. Upon completion, students should be able to exhibit significant progress in intermediate ballet technique and the ability to memorize extended combinations of steps.

DAN 133 Intermediate Ballet II 0 4 2

Prerequisites: DAN 132
Corequisites: DAN 134
This course is the second in a series of intermediate ballet technique. Emphasis is placed on progress in intermediate skills, memory and execution of steps, especially Grande Allegro. Upon completion, students should be able to exhibit significant achievement in intermediate ballet technique and the ability to quickly learn and retain combinations.

DAN 134 Ballet Pointe Work 0 2 1

Prerequisites:
Corequisites: DAN 132 or DAN 133
This course provides the fundamentals of pointe work. Emphasis is placed on releve, piques (pose), body placement, and foot strengthening. Upon completion, students should be able to execute simple ballet steps on pointe at the barre and in center.

DAN 140 Modern Dance I 0 4 2

Prerequisites:
Corequisites: None
This course introduces the elementary elements of modern dance technique. Emphasis is placed on floor, barre, and center floor exercises. Upon completion, students should be able to exhibit a basic understanding and skill in performing elementary modern dance technique.

DAN 141 Modern Dance II 0 4 2

Prerequisites: DAN 140
Corequisites: None
This course is the second in a series of elementary modern dance technique. Emphasis is placed on motor skill development and simple combinations in center floor. Upon completion, students should be able to exhibit moderate technical skill in elementary modern dance technique.

DAN 142 Intermediate Modern Dance I 0 4 2

Prerequisites: DAN 141
Corequisites: None
This course introduces intermediate modern dance technique. Emphasis is placed on kinesthesis (body energy) and intermediate movements including turns, spirals, and jumps. Upon completion, students should be able to demonstrate signif-

icant progress in intermediate technique and extended movement sequences.

DAN 143 Intermediate Modern Dance II 0 4 2

Prerequisites: DAN 142
Corequisites: None

This course is the second in a series of intermediate modern dance technique. Emphasis is placed on progress in intermediate skills, musical phrasing, and introduction to selections of modern dance repertoire. Upon completion, students should be able to demonstrate significant achievement in intermediate technique and to begin to practice selections of its repertoire.

DAN 191 Selected Topics in Dance 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DAN 192 Selected Topics in Dance 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DAN 193 Selected Topics in Dance 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DAN 196 Seminar in Dance 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

DAN 197 Seminar in Dance 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

DAN 198 Seminar in Dance 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

DAN 211 Dance History I 3 0 3

Prerequisites:
Corequisites: None

This course provides an in-depth study of world dance from pre-history to 1800. Emphasis is placed on examining the dance and dancers of diverse cultures including Africa, Asia, and Europe. Upon completion, students should be able to analyze the common need to dance and the forms, religions, and cultural values it embodies. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DAN 212 Dance History II 3 0 3

Prerequisites:
Corequisites: None

This course provides an in-depth study of world dance from 1800 to the present. Emphasis is placed on Western theatrical dance (ballet, modern dance, tap, and jazz) and the personalities that shaped it. Upon completion, students should be able to analyze culturally diverse dance forms and their cross-pollenation which have produced the "pan world dance of today." *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DAN 221 Advanced Modern Dance I 0 4 2

Prerequisites: DAN 143
Corequisites: None

This course introduces the advanced elements of modern dance technique. Emphasis is placed on advanced movements, mastery of technical skills, and spatial divisions. Upon completion, students should be able to demonstrate significant progress in the execution of all movements and to demonstrate a sense of quality in them.

DAN 222 Advanced Modern Dance II 0 4 2

Prerequisites: DAN 221
Corequisites: None

This course is the second in a series of advanced modern dance technique. Emphasis is placed on mastery and quality of technical skills and execution of complicated movement variations in extended sequence. Upon completion, students should be able to demonstrate significant achievement in modern dance skills and the ability to perform modern dance repertoire.

DAN 225 Choreography I 1 4 3

Prerequisites: DAN 140
Corequisites: Enrollment in DAN 142 or higher-level dance class

This course introduces the fundamental techniques of modern dance choreography. Emphasis is placed on improvisation and development of movement phrases. Upon completion, students should be able to create simple movements, improvise upon them, and develop longer movement phrases to create short dances.

DAN 226 Choreography II 1 4 3

Prerequisites: DAN 140
Corequisites: Enrollment in DAN 142 or higher-level dance class

This course introduces the elements of dance (time, space, form) and structural forms as used to choreograph. Emphasis is placed on the use of design, dynamics, rhythm, motivation, and musical forms to create dances. Upon completion, students should be able to utilize the elements of time, space, and form and form

manipulation to choreograph and rehearse a group dance.

DAN 236 Advanced Ballet I 0 4 2

Prerequisites: DAN 133
Corequisites: None
This course introduces the advanced elements of ballet technique. Emphasis is placed on refinement of all technical skills, learning advanced movements, pointe (female) and big jumps (male). Upon completion, students should be able to exhibit significant progress in the execution of all movements and to demonstrate a sense of quality in them.

DAN 237 Advanced Ballet II 0 4 2

Prerequisites:DAN 236
Corequisites: None
This course is the second in a series of advanced ballet technique. Emphasis is placed on mastery and quality of all skills, refinement of movements, pointe (female) and big jumps (male). Upon completion, students should be able to demonstrate significant achievement in all ballet skills and the ability to perform ballet repertoire.

DAN 262B Dance Performance 2 2 3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course includes audition, casting, rehearsal, and video performance of a new ballet. Emphasis is placed on universal rehearsal techniques, improvement of dance techniques, teamwork, and performance of new choreography. Upon completion, students should be able to demonstrate through video performance a basic knowledge of the creation of a new ballet. DAN 262B is ballet performance.

DAN 262M Dance Performance 2 2 3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course includes audition, casting, rehearsal, and video performance of a new ballet. Emphasis is placed on universal rehearsal techniques, improvement of dance techniques, teamwork, and performance of new choreography. Upon completion, students should be able to demonstrate through video performance a basic knowledge of the creation of a new ballet. DAN 262M is modern dance performance.

DAN 264B Dance Production 0 9 3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course covers creation, rehearsal, and performance, before a live audience, of a new or reconstructed work by faculty, guest artist, or repertory. Emphasis is placed on movement, memory skills, role development, accepted professional behavior, and ability to project the choreographer's intent. Upon completion, students should be able to demonstrate through performance a basic knowledge of the artistic and technical aspects of performing before a live audience. DAN 264B is ballet production.

DAN 264M Dance Production 0 9 3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course covers creation, rehearsal, and performance, before a live audience, of a new or reconstructed work by faculty, guest artist, or repertory. Emphasis is placed on movement, memory skills, role development, accepted professional behavior, and ability to project the choreographer's intent. Upon completion, students should be able to demonstrate through performance a basic knowledge of the artistic and technical aspects of performing before a live audience. DAN 264M is modern dance production.

DEN - Dental Programs (Dental Assisting and Dental Hygiene)

		Lecture	Lab	Clinic	Credit
DEN 100	**Basic Orofacial Anatomy**	2	0	0	2

Prerequisites: Enrollment in the Dental Assisting Program
Corequisites: DEN 101
This course provides a basic introduction to the structures of the head, neck, and oral cavity. topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. This is a diploma-level course.

DEN 101 Preclinical Procedures 4 6 0 7

Prerequisites: Enrollment in the Dental Assisting Program
Corequisites: DEN 111, DEN 100, DEN 102
This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. This is a diploma-level course.

DEN 102 Dental Materials 3 4 0 5

Prerequisites: Enrollment in the Dental Assisting Program
Corequisites: DEN 101
This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. This is a diploma-level course.

DEN 103 Dental Sciences 2 0 0 2

Prerequisites: DEN 100
Corequisites: None
This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies. This is a diploma-level course.

DEN 104 Dental Health Education 2 2 0 3

Prerequisites: DEN 101, DEN 111, DEN 100
Corequisites: None
This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. This is a diploma-level course.

DEN 105 Practice Management 2 0 0 2

Prerequisites: DEN 101
Corequisites: None
This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. This is a diploma-level course.

DEN 106 Dental Clinical Practice I 1 0 12 5

Prerequisites: All required DEN courses
Corequisites: None
This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting. This is a diploma-level course.

DEN 107 Dental Clinical Practice II 1 0 12 5

Prerequisites: DEN 106
Corequisites: None
This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. This is a diploma-level course.

DEN 110 Orofacial Anatomy 2 2 0 3

Prerequisites: Acceptance into Dental Hygiene Program
Corequisites: None
This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.

DEN 111 Infection and Hazard Control 2 0 0 2

Prerequisites: Acceptance into Dental Hygiene or Dental Assisting program
Corequisites: None
This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN 112 Dental Radiography 2 3 0 3

Prerequisites: Acceptance into Dental Hygiene or Dental Assisting program
Corequisites: DEN 100 or DEN 110 and DEN 111
This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

DEN 120 Dental Hygiene Preclinical Lecture 2 0 0 2

Prerequisites: Acceptance into Dental Hygiene program
Corequisites: DEN 121
This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate knowledge of dental hygiene instrumentation.

DEN 121 Dental Hygiene Preclinical Lab 0 6 0 2

Prerequisites: Acceptance into Dental Hygiene program
Corequisites: DEN 120
This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.

DEN 123 Nutrition/Dental Health 2 0 0 2

Prerequisites:
Corequisites: None
This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

DEN 124 Periodontology 2 0 0 2

Prerequisites: DEN 110
Corequisites: None
This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.

DEN 125 Dental Office Emergencies 0 2 0 1

Prerequisites: None
Corequisites: None
This course provides a study of the management of dental office emergencies. Topics include methods of prevention, necessary equipment/drugs, medicolegal considerations, recognition and effective initial management of a variety of emergencies. Upon completion, the student should be able to recognize, assess and manage various dental office emergencies and activate advanced medical support when indicated.

DEN 130 Dental Hygiene Theory I 2 0 0 2

Prerequisites: DEN 120
Corequisites: DEN 131
This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics

include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.

DEN 131 Dental Hygiene Clinic I 0 0 9 3

Prerequisites: DEN 121
Corequisites: DEN 130
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN 140 Dental Hygiene Theory II 1 0 0 1

Prerequisites: DEN 130
Corequisites: DEN 141
This course provides a continuation of the development, theory, and practice of patient care. Topics include modification of treatment for special needs patients, advanced radiographic interpretation, and ergonomics. Upon completion, students should be able to differentiate necessary treatment modifications, effective ergonomic principles, and radiographic abnormalities.

DEN 141 Dental Hygiene Clinic II 0 0 6 2

Prerequisites: DEN 131
Corequisites: DEN 140
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN 220 Dental Hygiene Theory III 2 0 0 2

Prerequisites: DEN 140
Corequisites: DEN 221
This course provides a continuation in developing the theories and practices of patient care. Topics include periodontal debridement, pain control, subgingival irrigation, air polishing, and case presentations. Upon completion, students should be able to demonstrate knowledge of methods of treatment and management of periodontally compromised patients.

DEN 221 Dental Hygiene Clinic III 0 0 12 4

Prerequisites: DEN 141
Corequisites: DEN 220
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with moderate to advanced periodontal involvement and moderate deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN 222 General and Oral Pathology 2 0 0 2

Prerequisites: BIO 163 or BIO 165 or BIO 168
Corequisites: None
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.

DEN 223 Dental Pharmacology 2 0 0 2

Prerequisites:
Corequisites: BIO 163 or BIO 165 or BIO 168
This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.

DEN 224 Materials and Procedures 1 3 0 2

Prerequisites: DEN 111
Corequisites: None
This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.

DEN 230 Dental Hygiene Theory IV 1 0 0 1

Prerequisites: DEN 220
Corequisites: DEN 231
This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.

DEN 231 Dental Hygiene Clinic IV 0 0 12 4

Prerequisites: DEN 221
Corequisites: DEN 230
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these Patient's' needs and complete the necessary dental hygiene treatment.

DEN 232 Community Dental Health 2 0 3 3

Prerequisites: DEN 123
Corequisites: None
This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.

DEN 233 Professional Development 2 0 0 2

Prerequisites:
Corequisites: None
This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, résumé, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.

DDF - Design Drafting

See also ATR-Automation, DFT-Drafting, ISC-Industrial Science, MEC-Mechanical Engineering Technology, and PLA-Plastics for other courses.

	Lecture	Lab	Credit
DDF 221 Design Drafting Project	0	4	2

Prerequisites: DFT 112
Corequisites: None
This course incorporates ideas from concept to final design. Topics include reverse engineering, design for manufacturability, and mock-up construction. Upon completion, students should be able to generate working drawings and models based on physical design parameters.

DES - Interior Design

See also ARC Architectural Technology for other descriptions.

	Lecture	Lab	Credit
DES 115 Color Theory	2	2	3

Prerequisites:
Corequisites: None
This course introduces the element of color as a major design factor. Emphasis is placed on the physical, psychological, and other implications of color in design. Upon completion, students should be able to demonstrate knowledge of color and its effects on the human environment.

DES 125 Graphic Presentation I 0 6 2

Prerequisites:
Corequisites: None
This course introduces graphic presentation techniques for communicating ideas. Topics include drawing, perspective drawing, and wet and dry media. Upon completion, students should be able to produce a pictorial presentation.

DES 126 Graphic Presentation II 0 6 2

Prerequisites: DES 125
Corequisites: None
This course provides a more in-depth study of graphic techniques. Topics include extensive wet and dry media experience and advanced measured perspective techniques. Upon completion, students should be able to illustrate interiors and other elements.

DES 130 Macintosh Application / Interior Design 2 3 3

Prerequisites:
Corequisites: None
This course introduces Macintosh applications using current appropriate software. Emphasis is placed on basic operation of the Macintosh computer in interior design applications. Upon completion, students should be able to select operations, print documents, and utilize applications to create documents for interior design.

DES 135 Principles and Elements of Design I 2 4 4

Prerequisites:
Corequisites: None
This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.

DES 136 Principles and Elements of Design II 2 4 4

Prerequisites: DES 135
Corequisites: None
This course provides continued study of design principles introduced in DES 135. Emphasis is placed on color theory, pattern, and texture as used in interiors as well as an investigation of the psychology of color. Upon completion, students should be able to originate a color program for interiors.

DES 210 Business Practice / Interior Design 2 0 2

Prerequisites:
Corequisites: None
This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to describe the basic business formations and professional associations and compose effective letters and contracts.

DES 220 Introduction to Interior Design 1 6 3

Prerequisites: DES 125, DES 135, and ARC 111
Corequisites: None
This course covers the basic principles of design as they relate specifically to interior design, furniture arrangement, wall composition, color, furnishings, collages, and illustration. Emphasis is placed on spatial relationships, craftsmanship, and visual presentation techniques. Upon completion, students should be able to arrange furnishings in rooms for various purposes, select furnishings and colors, and illustrate ideas graphically.

DES 225 Textiles / Fabrics 2 2 3

Prerequisites:
Corequisites: None
This course includes the study of woven and non-woven fabrics for interiors. Topics include characteristics of fibers, yarns, weaving, felting, and knitting; processing of leather; and adorning and finishing of interior fabrics. Upon completion, students should be able to recognize and use correct terminology for upholstery, window treatments, and rugs/carpets with regard to flammability, performance, and durability.

DES 230 Residential Design I 1 6 3

Prerequisites: ARC 111, DES 125, DES 220, DES 135, ARC 120
Corequisites: None
This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifica-

tions. Upon completion, students should be able to complete scaled floor plans, elevations, specifications, color schemes and fabrics, and finishes and furniture selection.

DES 231 Residential Design II 1 6 3

Prerequisites: DES 230, ARC 111, DES 125, DES 135, ARC 120, DES 220, DES 230

Corequisites: None

This course provides advanced projects with a client profile that utilizes the skills developed in DES 230. Emphasis is placed on a total concept and the presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floor plan, space planning, furniture plan, specifications, program schedules, finishes, and detailed window treatments.

DES 235 Products 2 2 3

Prerequisites:

Corequisites: None

This course provides an overview of interior finishing materials and the selection of quality upholstery and case goods. Topics include hard and resilient floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to recognize and use correct terminology, select appropriate materials for interior surfaces, and choose furniture based on sound construction.

DES 240 Non-Residential Design I 1 6 3

Prerequisites: DES 220, ARC 111, ARC 120, DES 125, DES 135, DES 220

Corequisites: None

This course introduces commercial/contract design including retail, office, institutional, restaurant, and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze and design introductory non-residential projects using graphic presentation concepts.

DES 241 Non-Residential Design II 1 6 3

Prerequisites: DES 240, ARC 111, ARC 120, DES 125, DES 135, DES 220, DES 240

Corequisites: None

This course provides an in-depth study of non-residential design exploring more comprehensive design solutions such as health care facilities, furniture gallery design, and large office complexes. Emphasis is placed on design of commercial interiors and suitability of materials to meet ADA requirements, codes, and standards. Upon completion, students should be able to design non-residential spaces meeting ADA requirements and select furniture, materials, fabrics, and accessories meeting codes and flammability standards.

DES 245 Sales and Marketing / Interior Design 2 0 2

Prerequisites:

Corequisites: None

This course introduces retail/wholesale sales and marketing concepts, product distribution, and terminology for the interior design profession. Topics include current retail/wholesale marketing techniques, sales terminology, acceptable business practices, and basic retail/wholesale computations. Upon completion, students should be able to demonstrate knowledge of specific design marketing and sales organizations and techniques and compute basic mark-ups and mark-downs.

DES 250 Store Planning 2 3 3

Prerequisites: DES 220, ARC 111, ARC 120, DES 125, DES 135, DES 240

Corequisites: None

This course introduces theoretical and practical concepts in store design based on current retail merchandising methods. Topics include retail display, lighting, selection of fixtures, and formulas for successful space planning and allocation. Upon completion, students should be able to plan a store interior given established requirements for retail lighting, fixtures, and visual merchandising.

DES 255 History / Interior and Furnishings I 3 0 3

Prerequisites:

Corequisites: None

This course covers interiors, exteriors, and furnishings from ancient Egypt through French Neo-Classicism. Emphasis is placed on vocabulary, chronology, and style recognition. Upon completion, students should be able to classify and date interior and exterior architecture and furnishings and be conversant with pertinent vocabulary.

DES 257 History of American Homes 3 0 3

Prerequisites:

Corequisites: None

This course provides an overview of American architectural styles from Medieval frame dwellings through the International style. Emphasis is placed on vocabulary, characteristics of architectural styles, and chronology as well as research of a historic home. Upon completion, students should be able to identify and use correct terminology regarding the history of American homes.

DES 258 Historic Preserve / Restoration 3 2 4

Prerequisites: DES 230 and either DES 255 or DES 256

Corequisites: None

This course surveys American architectural styles from the 17th century to the present as an introduction to historic restoration and adaptive reuse. Emphasis is placed on research techniques, period design, furnishings, and construction techniques used in historic preservation and restoration. Upon completion, students should be able to design interiors appropriate for historic periods by drawing from a broad knowledge of historic design.

DES 260 Materials Calculations / Interior Design 3 0 3

Prerequisites:

Corequisites: None

This course includes the study of calculations for square footage, square yardage, and cut-length yardage. Emphasis is placed on the development of workable formulas, worksheets, and order forms that can be used in an interior design business. Upon completion, students should be able to produce electronic worksheets and order forms for calculating window treatments, wall coverings, and floor coverings for a given space.

DES 275 Furniture Design and Construction 2 2 3

Prerequisites: ARC 111, ARC 120, DES 125, DES 220, and DES 135

Corequisites: None

This course introduces contemporary furniture design and construction techniques used in custom and handmade furniture building. Topics include design and manufacturing processes and materials selection for handmade and production, case goods, and upholstery manufacturing. Upon completion, stu-

dents should be able to design and describe manufacturing processes used in both case goods and upholstered furniture manufacturing.

DES 280 Codes and Standards / Interior Description 3 0 3

Prerequisites:
Corequisites: None
This course introduces institutional and residential building codes as they relate to interior design. Topics include state and federal codes and standards related to physically disadvantaged access, fire codes, space allocation codes, and bathroom facility codes. Upon completion, students should be able to research and interpret state and federal building codes.

DES 285 Capstone / Interior Design 2 6 4

Prerequisites: DES 210, DES 230, and DES 240
Corequisites: None
This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.

DFT - Drafting

See also ATR-Automation, DDF-Design Drafting, ISC-Industrial Science, MEC-Mechanical Engineering Technology, and PLA-Plastics for other courses.

	Lecture	Lab	Credit
DFT 111 Technical Drafting I	1	3	2

Prerequisites:
Corequisites: None
This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

DFT 112 Technical Drafting II 1 3 2

Prerequisites: DFT 111
Corequisites: None
This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

DFT 121 Introduction to Geometric Dimensioning and Tolerancing 1 2 2

Prerequisites:DFT 111
Corequisites: None
This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

DFT 151 CAD I 2 3 3

Prerequisites: DFT 111
Corequisites: None
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152 CAD II 2 3 3

Prerequisites: DFT 151
Corequisites: None
This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

DFT 170 Engineering Graphics 2 2 3

Prerequisites:
Corequisites: None
This course introduces basic engineering graphics skills, equipment and applications (manual and computer-aided). Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, and sectional and auxiliary views. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. *This course is intended for A.S. Engineering transfer students.*

DDT - Developmental Disabilities

	Lecture	Lab	Clinic	Credit
DDT 110 Developmental Disabilities	3	0	0	3

Prerequisites:
Corequisites: None
This course identifies the characteristics and causes of various disabilities. Topics include history of service provision, human rights, legislation and litigation, advocacy, and accessing support services. Upon completion, students should be able to demonstrate an understanding of current and historical developmental disability definitions and support systems used throughout the life span.

DDT 120 Teaching Developmentally Disabled 3 0 0 3

Prerequisites: DDT 110
Corequisites: None
This course covers teaching modalities which enhance learning among people with developmental disabilities. Topics include assessment, support strategies, writing behavioral strategies, teaching methods, and documentation. Upon completion, students should be able to demonstrate competence in individual program plan development and implementation. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

DDT 210 Developmental Disabilities / Health Issues 3 0 0 3

Prerequisites: DDT 110
Corequisites: None
This course introduces the health and medical aspects of assisting people with developmental disabilities. Topics include universal precautions, medication, wellness, nutrition, human sexuality, and accessing medical services. Upon completion,

students should be able to identify and implement strategies to promote wellness and manage chronic health conditions. Upon completion, students should be able to identify and implement strategies for the maintenance, prevention, and treatment of predominant health conditions affecting the developmentally disabled. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

DDT 220 Program Planning Process 3 0 0 3

Prerequisites:
Corequisites: None
This course covers the individual program planning process used in services for people with developmental disabilities. Topics include basic components and benefits of the process, the effect of values on outcomes, and group problem-solving methods. Upon completion, students should be able to demonstrate an understanding of effective group process in program planning and the individual roles of team members. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

DRA - Drama/Theatre

	Lecture	Lab	Credit

DRA 111 Theatre Appreciation 3 0 3

Prerequisites:
Corequisites: None
This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DRA 120 Voice for Performance 3 0 3

Prerequisites:
Corequisites: None
This course provides guided pracitice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronouncation, and other vocal variables. Upon completion, students should able to demonstrate effective theatrical speech.

DRA 130 Acting I 0 6 3

Prerequisites:
Corequisites: None
This course provides an applied study of the actor's craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble.

DRA 131 Acting II 0 6 3

Prerequisites: DRA 130 or Division Consent
Corequisites: None
This course provides additional hands-on practice in the actor's craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble.

DRA 135 Acting for the Camera I 1 4 3

Prerequisites:
Corequisites: None
This course provides an applied study of the camera actor's craft. Topics include commercial, dramatic, and print performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.

DRA 136 Acting for the Camera II 1 4 3

Prerequisites: DRA 135 or Division Consent
Corequisites: None
This course provides additional hands-on study of the camera actor's craft. Emphasis is placed on more advanced camera acting theories, auditioning techniques, daytime drama, feature film, and print advertisement performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.

DRA 140 Stagecraft I 0 6 3

Prerequisites:
Corequisites: None
This course introduces the theory and basic construction of stage scenery and properties. Topics include stage carpentry, scene painting, stage electrics, properties, and backstage organization. Upon completion, students should be able to pursue vocational and avocational roles in technical theatre.

DRA 141 Stagecraft II 0 6 3

Prerequisites: DRA 140 or Division Consent
Corequisites: None
This course provides additional hands-on practice in the elements of stagecraft. Emphasis is placed on the design and implementation of the arts and crafts of technical theatre. Upon completion, students should be able to pursue vocational or avocational roles in technical theatre.

DRA 142 Costuming 2 2 3

Prerequisites:
Corequisites: None
This course covers the techniques of costume construction and crafts processes. Emphasis is placed on learning costuming techniques, using equipment and materials, and finishing production-appropriate costumes. Upon completion, students should be able to demonstrate an understanding of pattern drafting, construction techniques, and costume fitting procedures.

DRA 145 Stage Make-up 1 2 2

Prerequisites:
Corequisites: None
This course covers the research, design, selection of materials, and application of stage make-up prosthetics, wigs, and hairpieces. Emphasis placed on e development of technics, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces.

DRA 170 Play Production I 0 9 3

Prerequisites:
Corequisites: None
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 171 Play Production II 0 9 3

Prerequisites: DRA 170 or Division Consent
Corequisites: None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 175 Teleplay Production I 0 9 3

Prerequisites:
Corequisites: None

This course provides an applied laboratory study of the processes involved in production of a dramatic television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing dramatic television programming. Upon completion, students should be able to participate in an assigned position with a college dramatic television production.

DRA 176 Teleplay Production II 0 9 3

Prerequisites: DRA 175 or Division Consent
Corequisites: None

This course provides an applied laboratory study of the processes involved in production of a sit-com television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing sit-com television programming. Upon completion, students should be able to participate in an assigned position with a college sit-com television production.

DRA 191 Selected Topics in Drama 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 192 Selected Topics in Drama 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 193 Selected Topics in Drama 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 270 Play Production III 0 9 3

Prerequisites: DRA 171 or Division Consent
Corequisites: None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 271 Play Production IV 0 9 3

Prerequisites: DRA 270 or Division Consent
Corequisites: None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 275 Teleplay Production III 0 9 3

Prerequisites: DRA 176 or Division Consent
Corequisites: None

This course provides an applied laboratory study of the processes involved in production of an action television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing action television programming. Upon completion, students should be able to participate in an assigned position with a college action television production.

DRA 276 Teleplay Production IV 0 9 3

Prerequisites: DRA 275
Corequisites: None

This course provides an applied laboratory study of the processes involved in production of a variety television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing variety television programming. Upon completion, students should be able to participate in an assigned position with a college variety television production.

DRA 291 Selected Topics in Drama 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 292 Selected Topics in Drama 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 293 Selected Topics in Drama 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ECO - Economics

	Lecture	Lab	Credit
ECO 151 Survey of Economics	3	0	3

Prerequisites:
Corequisites: None

This course, for those who have not received credit for ECO 251 or 252, introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. Students should complete any Advancement Studies courses prior to taking this class.*

ECO 251 Principles of Microeconomics	3	0	3

Prerequisites:
Corequisites: None

This course introduces economic analysis of choices made by individuals, businesses, and industries in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course is intended for those who have not received credit for ECO 151. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. Students should complete any Advancement Studies courses prior to taking this class.*

ECO 252 Principles of Macroeconomics	3	0	3

Prerequisites:
Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. This course is intended for those who have not received credit for ECO 151. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. Students should complete any Advancement Studies courses prior to taking this class.*

EDU - Early Childhood Associate

	Lecture	Lab	Credit
EDU 111 Early Childhood Credential I	2	0	2

Prerequisites:
Corequisites: None

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.

EDU 112 Early Childhood Credential II	2	0	2

Prerequisites:
Corequisites: None

This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

EDU 113 Family / Early Child Credentials	2	0	2

Prerequisites:
Corequisites: None

This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance, and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures, and practices for a family child care home.

EDU 119 Early Childhood Education	3	2	4

Prerequisites:
Corequisites: None

This course covers the foundations of the education profession, types of programs, professionalism, and planning quality programs for children. Topics include historical foundations, career options, types of programs, professionalism, observational skills, and planning developmentally appropriate schedules, environments, and activities for children. Upon completion, students should be able to demonstrate observational skills, identify appropriate schedules and environments, develop activity plans, and describe influences on the profession.

EDU 131 Child, Family and Community	3	0	3

Prerequisites:
Corequisites: None

This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

EDU 144 Child Development I	3	0	3

Prerequisites:
Corequisites: None

This course covers the theories of child development and the developmental sequences of children from conception through the pre-school years for early childhood educators. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and appropriate experiences for the young child. Upon completion, students should be able to identify developmental milestones, plan experiences to enhance development, and describe appropriate interaction techniques and environments for typical/atypical development.

EDU 145 Child Development II 3 0 3

Prerequisites:
Corequisites: None

This course covers theories of child development and developmental sequences of children from pre-school through middle childhood for early childhood educators. Emphasis is placed on characteristics of physical/motor, social, emotional, and cognitive/language development and appropriate experiences for children. Upon completion, students should be able to identify developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.

EDU 146 Child Guidance 3 0 3

Prerequisites:
Corequisites: None

This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

EDU 151 Creative Activities 3 0 3

Prerequisites:
Corequisites: EDU151A

This course covers creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasis is placed on creative activities for children in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to select and evaluate developmentally appropriate learning materials and activities.

EDU 151A Creative Activities Lab 0 2 1

Prerequisites:
Corequisites: EDU 151

This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

EDU 153 Health, Safety and Nutrition 3 0 3

Prerequisites:
Corequisites: None

This course focuses on promoting and maintaining the health and well-being of children. Topics include health and nutritional needs, safe and healthy environments, and recognition and reporting of child abuse and neglect. Upon completion, students should be able to set up and monitor safe indoor and outdoor environments and implement a nutrition education program.

EDU 188 Issues in Early Child Education 2 0 2

Prerequisites:
Corequisites: None

This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education.

EDU 197 Seminar in Early Childhood Education 2 0 2

Prerequisites: Enrollment in the program or permission
Corequisites: COE 111N

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

EDU 221 Children with Special Needs 3 0 3

Prerequisites: EDU 144 and EDU 145 or PSY 244 and PSY 245
Corequisites: None

This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

EDU 234 Infants, Toddlers and Twos 3 0 3

Prerequisites:
Corequisites: None

This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

EDU 235 School-Age Dev & Program 2 0 2

Prerequisites:
Corequisites: None

This course presents developmentally appropriate practices in group care for school-age children. Topics include principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for children five to twelve years of age and plan and implement age-appropriate activities.

EDU 241 Adult-Child Relations 2 0 2

Prerequisites:
Corequisites: None

This course covers self-concept and effective and active listening skills in positive one-to-one interactions with individuals and groups of children. Emphasis is placed on self-concept development and effective communication techniques used with children. Upon completion, students should be able to identify principles underlying self-concept and demonstrate effective listening and communication skills used by adults with children.

EDU 251 Exploration Activities 3 0 3

Prerequisites:
Corequisites: EDU 251A

This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.

EDU 251A Exploration Act Lab 0 2 1

Prerequisites:
Corequisites: EDU 251

This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

EDU 254 Music & Move for Children 1 2 2

Prerequisites:
Corequisites: None

This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children.

EDU 259 Curriculum Planning 3 0 3

Prerequisites: EDU 112, EDU 113, or EDU 119
Corequisites: None

This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

EDU 261 Early Childhood Administration I 2 0 2

Prerequisites:
Corequisites: None

This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

EDU 262 Early Childhood Administration II 3 0 3

Prerequisites: EDU 261
Corequisites: None

This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a child care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

EDU 263 Dev School-Age Program 2 0 2

Prerequisites:
Corequisites: None

This course introduces the methods and procedures for operating a school-age program in either the public or proprietary setting. Emphasis is placed on construction and organizing the physical environment as well as planning and developing a school-age program. Upon completion, students should be able to plan and develop a quality school-age program.

EDU 280 Literacy Experiences 3 0 3

Prerequisites:
Corequisites: EDU280A

This course covers literacy, early literacy development, and appropriate early experiences with books and writing. Emphasis is placed on reading and writing readiness, major approaches used in teaching literacy, and strategies for sharing quality in children's literature. Upon completion, students should be able to select, plan, and evaluate appropriate early literacy experiences.

EDU 280A Literacy Experiences Lab 0 2 1

Prerequisites:
Corequisites: EDU 280

This course provides a laboratory component to complement EDU 280. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate early literacy experiences.

EDU 288 Advanced Issues in Early Child Education 2 0 2

Prerequisites:
Corequisites: None

This course covers advanced topics and issues in early childhood. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues in early childhood education.

EDU 297 Seminar in Early Childhood Education 2 0 2

Prerequisites: Enrollment in the program or permission
Corequisites: COE121N

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ELC - Electricity

See also ELN Electronics and CET Computer Engineering Technology for additional courses.

Lecture Lab Credit

ELC 110 Telecom Circuits/Devices 3 3 4

Prerequisites:
Corequisites: None

This course introduces the basic AC/DC components, semiconductor-based devices, and other related components as applied to telecom circuits. Emphasis is placed on analysis, applications, and testing of these circuits. Upon completion, students will be able to construct, verify, analyze, and troubleshoot these circuits.

ELC 111 Introduction to Electricity 2 2 3

Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion,

students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

ELC 112 DC/AC Electricity 3 6 5

Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment, and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC 113 Basic Wiring I 2 6 4

Prerequisites:
Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ELC 114 Basic Wiring II 2 6 4

Prerequisites: ELC 113
Corequisites: None

This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

ELC 115 Industrial Wiring 2 6 4

Prerequisites: ELC 113
Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC 116 Telecom Cabling 1 2 2

Prerequisites: ELC 110
Corequisites: None

This course introduces the theory and practical application of both copper and fiber cabling for telecom systems. Topics include transmission theory, noise, standards, cable types and systems, connectors, physical layer components, installation, and ground/shielding techniques. Upon completion, students should be able to choose the correct cable, install, test, and troubleshoot cabling for telecom.

ELC 117 Motors and Controls 2 6 4

Prerequisites: ELC 112 or ELC 131
Corequisites: None

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC 118 National Electrical Code 1 2 2

Prerequisites:
Corequisites: None

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

ELC 119 NEC Calculations 1 2 2

Prerequisites:
Corequisites: None

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

ELC 121 Electrical Estimating 1 2 2

Prerequisites: ELC 113
Corequisites: None

This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

ELC 125 Diagrams and Schematics 1 2 2

Prerequisites:
Corequisites: None

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

ELC 126 Electrical Computations 2 2 3

Prerequisites:
Corequisites: None

This course introduces the fundamental applications of mathematics which are used by an electrical/electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.

ELC 127 Software for Technicians 1 2 2

Prerequisites:
Corequisites: None

This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations, applications, and controls. Upon completion, students should be able to utilize a personal computer for electrical/electronics- related applications.

ELC 128 Introduction to Programmable Logic Controller (PLC) 2 3 3

Prerequisites:
Corequisites: None

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

ELC 131 DC/AC Circuit Analysis 4 3 5

Prerequisites:
Corequisites: MAT 121 or MAT 171

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELC 132 Electrical Drawings 1 3 2

Prerequisites:
Corequisites: None

This course introduces the technical documentation that is typically found or used in the industrial environment. Topics include interpretation of service manuals, freehand sketching of lines, orthographic views and dimensions, and blueprint reading. Upon completion, students should be able to interpret technical documents and blueprints and use basic drafting skills to prepare usable field drawings.

ELC 133 Advanced Circuit Analysis 2 3 3

Prerequisites: ELC 131
Corequisites: None

This course covers additional concepts of DC/AC electricity, the use of test equipment, and measurement techniques for electrical/electronics majors. Topics include the application of network theorems such as delta/wye transformations, Superposition Theorem, and other advanced circuit analysis principles. Upon completion, students should be able to construct and analyze DC/AC circuits used advanced circuit analysis theorems, circuit simulators, and test equipment.

ELC 135 Electrical Machines I 2 2 3

Prerequisites: ELC 131
Corequisites: None

This course covers magnetic circuits, transformers, DC/AC generators, and a review of the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and generator regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC single- and three-phase transformer and generator circuits. Emphasis will be placed upon the experimental measurement of machine operational data and its use in performance evaluation.

ELC 136 Electrical Machines II 3 3 4

Prerequisites: ELC 135
Corequisites: None

This course covers DC/AC motor fundamentals including applications and control. Topics include control devices, synchronous and induction single and polyphase AC motors, DC motors, stepper, and special purpose motors. Upon completion, students should be able to perform regulation and efficiency calculations and apply motor theory to practical control applications. Laboratory experiments will be used to relate calculated machine data to actual performance.

ELC 213 Instrumentation 3 2 4

Prerequisites: ELC 111, ELC 112, or ELC 131
Corequisites: None

This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and pneumatic instruments. Upon completion, students should be able to design, install, maintain, and calibrate instrumentation.

ELC 215 Electrical Maintenance 2 3 3

Prerequisites: ELC 117
Corequisites: None

This course introduces the theory of maintenance and the skills necessary to maintain electrical equipment found in industrial and commercial facilities. Topics include maintenance theory, predictive and preventive maintenance, electrical equipment operation and maintenance, and maintenance documentation. Upon completion, students should be able to perform maintenance on electrical equipment in industrial and commercial facilities.

ELC 228 Programmable Logic Controllers (PLC) Applications 2 6 4

Prerequisites: ELC 128
Corequisites: None

This course continues the study of the programming and applications of programmable logic controllers. Emphasis is placed on advanced programming, networking, advanced I/O modules, reading and interpreting error codes, and troubleshooting. Upon completion, students should be able to program and troubleshoot programmable logic controllers.

ELC 229 Applications Project 1 3 2

Prerequisites: ELC 112, ELC 113, or ELC 140
Corequisites: None

This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

ELC 231 Electric Power Systems 3 2 4

Prerequisites: ELC 135
Corequisites: None

This course covers the basic principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis is placed on line diagrams and per unit calculations for circuit performance analysis in regards to voltage regulation, power factor, and protection devices. Upon completion, students should be able to analyze simple distribution subsystems, calculate fault current, and determine the size and type of circuit protection devices. Students will also investigate electronic power control applications in a practical laboratory environment.

ELC 234E Electrical System Design 2 3 3

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course introduces the principles of electrical design for commercial and industrial facilities. Topics include services, high and low power distribution, switchboards, panel boards, motor control centers, switch gear, overcurrent protection, and grounding. Upon completion, students should be able to design services, feeders, and branch circuits for typical commercial/industrial applications in accordance with the National Electrical Code.

ELN - Electronics

See also ELC Electricity and CET Computer Engineering Technology for additional courses.

	Lecture	Lab	Credit

ELN 116 Telecom Digital Logic 3 3 4

Prerequisites: MAT 080 or placement test
Corequisites: None

This course covers the application of binary logic circuits to digital systems. Emphasis is placed on circuits that are utilized in telecom systems. Upon completion, students will be able to construct, analyze, verify, and troubleshoot telecom digital systems using appropriate techniques and test equipment.

ELN 131 Electronic Devices 3 3 4

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

ELN 131E Electronic Devices 3 3 4

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment. ELN 131E is more indepth than ELN 131 and is meant for Computer/Electrical/Electronics Engineering Technology students.

ELN 132 Linear Integrated Circuits Applications 3 3 4

Prerequisites: ELN 131E or BMT 113
Corequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

ELN 133 Digital Electronics 3 3 4

Prerequisites: ELC 111, ELC 112, ELC 131 or ELC 140
Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

ELN 133E Digital Electronics 3 3 4

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment. ELN 133E is more in depth than ELN 133 and is meant for Computer/Electrical/Electronics Engineering Technology students.

ELN 136 Telecom Digital Systems 3 3 4

Prerequisites: ELN 116
Corequisites: None

This course corvers the applications of microprocessors in digital communication circuits. Emphasis is placed on interfacing I/O peripherals, data communication circuits, DSP circuits, UART's modems, and other communication circuits. Upon completion, students will be able to design, construct, verify, analyze, and troubleshoot using appropriate techniques and test equipment.

ELN 150 CAD for Electronics 1 3 2

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course introduces computer-aided drafting (CAD) with an emphasis on applications in the electronics field. Topics include electronics industry standards (symbols, schematic diagrams, layouts); drawing electronic circuit diagrams; and specialized electronic drafting practices and components such as resistors, capacitors, and ICs. Upon completion, students should be able to prepare electronic drawings with CAD software.

ELN 154 Introduction to Data Communications 2 3 3

Prerequisites: ELN 133E
Corequisites: None

This course introduces the principal elements and theory (analog and digital techniques) of data communication systems and how they are integrated as a complete network. Topics include an overview of data communication, OSI model, transmission modes, serial and parallel interfaces, applications of ICs, protocols, network configurations, modems, and related applications. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems and high speed networks.

ELN 193 Selected Topics in Electronics Engineering Technology 1-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ELN 229 Industrial Electronics 2 4 4

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

ELN 232 Introduction to Microprocessors 3 3 4

Prerequisites: ELN 133E
Corequisites: None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

ELN 233 Microprocessor Systems 3 3 4

Prerequisites: ELN 232
Corequisites: None

This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

ELN 234 Communication Systems 3 3 4

Prerequisites: ELN 132 or ELN 140
Corequisites: None

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

ELN 235 Data Communication System 3 3 4

Prerequisites: ELN 133E
Corequisites: None

This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, serial interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

ELN 236 Fiber Optics and Lasers 3 2 4

Prerequisites: ELN 234
Corequisites: None

This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals.

ELN 237 Local Area Networks 2 3 3

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course introduces the fundamentals of local area networks and their operation in business and computer environments. Topics include the characteristics of network topologies, system hardware (repeaters, bridges, routers, gateways), system configuration, and installation and administration of the local area networks (LAN). Upon completion, students should be able to install, maintain, and manage a local area network.

ELN 238 Advanced Local Area Networks 2 3 3

Prerequisites: ELN 237
Corequisites: None

This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance. Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multiplatform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

ELN 247 Electronic Application Project 1 3 2

Prerequisites: ELN 131E or ELN 140
Corequisites: None

This course provides a structured approach to an application-oriented electronics project. Emphasis is placed on selecting, planning, implementing, testing, and presenting an application-oriented project. Upon completion, students should be able to present and demonstrate an electronics application-oriented project. Project analysis, measurement, and performance evaluation will serve as the basis for a project final report.

ELN 260 Program Logic Controllers 3 3 4

Prerequisites: ELN 133 or ELN 133E
Corequisites: None

This course provides a detailed study of PLC applications, with a focus on design of industrial control circuits using the PLC. Topics include PLC components, memory organization, math instructions, programming documentation, input/output devices, and applying PLCs in the design of industrial control systems. Upon completion, students should be able to design and program a PLC system to perform a wide variety of industrial control functions.

ELN 275 Troubleshooting 1 2 2

Prerequisites:
Corequisites: ELN 133E or ELN 141

This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications. Students will utilize the relationship of system hardware failures to component failures to establish diagnose-and-repair processes.

EGR - Engineering

See also CIV Civil Engineering Technology, and SRV Surveying Technology for other Technology courses.

Lecture Lab Credit

EGR 115 Intro to Technology 2 6 4

Prerequisites: None
Corequisites: MAT 121

This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using

a scientific calculator.

ENG - English

	Lecture	Lab	Credit

ENG 101 Applied Communications I 3 0 3

Prerequisites: None
Corequisites: None

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This is a diploma-level course.

ENG 111 Expository Writing 3 0 3

Prerequisites: ENG 090 and RED 090; or ENG 095; or placement test; or consent of Division Director.
Corequisites: None

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 112 Argument-Based Research 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 113 Literature-Based Research 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 114 Professional Research and Reporting 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 125 Creative Writing I 3 0 3

Prerequisites: ENG 111 or consent of Division Director.

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. The primary focus of this course is poetry and fiction although some time will be devoted to non-fiction.

Note: This course is a Writing Intensive Elective for UNCC.

ENG 126 Creative Writing II 3 0 3

Prerequisites: ENG 125 or consent of Division Director.
Corequisites: None

This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. The main focus of this course will be on poetry and fiction; however, some attention will be devoted to creative non-fiction.

Note: This course is a Writing Intensive Elective for UNCC.

ENG 133 Introduction to the Novel 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: ENG 112, ENG 113 or ENG 114

This course provides intensive study of the novel as a literary form, based on close reading of representative texts. Emphasis is placed on the development and analysis of the novel. Upon completion, students should be able to interpret, analyze, and discuss the distinguishing features of the novel.

ENG 231 American Literature I 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical, and cultural contexts. Students will be introduced to traditional and nontraditional writers, significant literary trends and movements, literary terminology, and a variety of critical approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 232 American Literature II 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. Students will be introduced to traditional and nontraditional writers, significant literary trends and

movements, literary terminology and a variety of critical approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 241 British Literature I 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 242 British Literature II 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 251 Western World Literature I 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 252 Western World Literature II 3 0 3

Prerequisites: ENG 112, ENG 113 or ENG 114 or consent of Division Director.

Corequisites: None

This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 253 The Bible as Literature 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course introduces the Hebrew Old Testament and the Christian New Testament as works of literary art. Emphasis is placed on the bible's literary aspects including history, composition, structure, and cultural contexts. Upon completion, students should be able to identify and analyze selected books and passages using appropriate literary conventions.

ENG 271 Contemporary Literature 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course includes a study of contemporary literature. Emphasis is placed on literary and cultural trends of selected texts. Upon completion, students should be able to interpret, analyze, and respond to the literature.

ENG 273 African-American Literature 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts.

ENG 274 Literature by Women 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works.

ENG 275 Science Fiction 3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course covers the relationships between science and literature through analysis of short stories and novels. Emphasis is placed on scientific discoveries that shaped Western culture and our changing view of the universe as reflected in science fiction literature. Upon completion, students should be able to trace major themes and ideas and illustrate relationships between science, world view, and science fiction literature.

ENG - Advancement Studies (ENG 060- 090)

See Pre-College section of this catalog.

EHS - Environment Health and Safety

Lecture Lab Credit

EHS 111 Occupational Safety / Engineering 5 0 5

Prerequisites:

Corequisites: None

This course introduces the role of the safety practitioner and safety engineer in business, industrial, and institutional settings. Topics include Workers Compensation, record keeping and training, and correct handling procedures for hazardous materials. Upon completion, students should be able to perform preliminary hazards analysis, fault tree analysis, and other safety monitoring and compliance practices.

EHS 112 Industrial Hygiene 5 0 5

Prerequisites:
Corequisites: None

This course provides a clear understanding of the history and development of the industrial hygiene movement, with emphasis on recognizing specific health hazards. Topics include an introduction to harmful agents, routes of entry, skin diseases, types of airborne contaminants, and a review of federal agencies. Upon completion, students should be able to identify the role and function of the industrial hygienist relative to the industrial environment.

EHS 113 OSHA Electrical Safety 3 0 3

Prerequisites:
Corequisites: None

This course covers OSHA electrical safety regulations that apply to general industry. Emphasis is placed on controlling electrical hazards in the workplace, understanding ground paths, recognizing electrical hazards, and interpreting electrical standards. Upon completion, students should be able to demonstrate an understanding of OSHA electrical safety regulations within general industry.

EHS 114 OSHA Regulations 3 0 3

Prerequisites:
Corequisites: None

This course covers OSHA regulations that govern workplace safety. Emphasis is placed on problems and case studies in which applicable OSHA regulations are identified and interpreted. Upon completion, students should be able to identify incidents of non-compliance and recommend compliance strategies.

EHS 116 Environmental Management 4 0 4

Prerequisites:
Corequisites: None

This course covers management of environmental processes in general industry. Emphasis is placed on environmental chemistry, air quality compliance, environmental toxicology, waste disposal techniques, and air emission technology. Upon completion, students should be able to provide leadership in the environmental management area and demonstrate knowledge of applicable environmental management techniques.

EHS 211 Environmental Regulations 5 0 5

Prerequisites:
Corequisites: None

This course introduces general industry environmental regulations. Emphasis is placed on problems and case studies in which applicable EPA regulations are identified and interpreted. Upon completion, students should be able to identify incidents of non-compliance and recommend compliance strategies.

EHS 212 Industrial Hygiene Sampling 3 2 4

Prerequisites: CHM 131
Corequisites: None

This course covers industrial hygiene and sampling. Topics include the calibration and operation of sampling equipment and instruments. Upon completion, students should be able to perform basic industrial hygiene sampling procedures and interpret the results.

EHS 213 Environmental Liability 3 0 3

Prerequisites:
Corequisites: None

This course covers major federal and state laws concerning environmental liability. Topics include a review of SARA, the Resource Conservation and Recovery Act of 1976, and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Upon completion, students should be able to discuss and explain major principles of environmental legal liability.

EHS 218 Industrial Ergonomics 3 0 3

Prerequisites:
Corequisites: None

This course covers ergonomic issues, including cumulative trauma disorders and carpal tunnel syndrome. Emphasis is placed on biomechanics, hand-wrist injuries, repetitive-motion disorders, and appropriate record keeping requirements. Upon completion, students should be able to provide ergonomic assistance throughout the facility, conduct ergonomic audits, and recognize ergonomic problems in the work place.

FIP - Fire Protection Technology

	Lecture	Lab	Credit

FIP 120 Introduction to Fire Protection 2 0 2

Prerequisites:
Corequisites: None

This course provides an overview of the history, development, methods, systems, and regulations as they apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP 124 Fire Prevention and Public Education 3 0 3

Prerequisites:
Corequisites: None

This course introduces fire prevention concepts as they relate to community and industrial operations. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.

FIP 128 Arson Investigation 3 0 3

Prerequisites:
Corequisites: None

This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent.

FIP 132 Building Construction 3 0 3

Prerequisites:
Corequisites: None

This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions.

FIP 136 Inspections and Codes 3 0 3

Prerequisites:
Corequisites: None

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report.

FIP 140 Industrial Fire Protection 2 0 2

Prerequisites:
Corequisites: None

This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to prepare a procedure to plan, organize, and evaluate an industrial facility's fire protection.

FIP 144 Sprinklers and Auto Alarms 3 2 4

Prerequisites:
Corequisites: None

This course introduces various types of automatic sprinklers, standpipes, and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, and other related topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.

FIP 148 Fixed and Portable Extinguishing Systems 2 2 3

Prerequisites:
Corequisites: None

This course provides a study of various types of fixed and portable extinguishing systems, their operation, installation, and maintenance. Topics include applications, testing, and maintenance of Halon, carbon dioxide, dry chemical, and special extinguishing agents in fixed and portable systems. Upon completion, students should be able to identify various types of fixed and portable systems, including their proper application and maintenance.

FIP 152 Fire Protection Law 2 0 2

Prerequisites:
Corequisites: None

This course covers fire protection law. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

FIP 220 Fire Fighting Strategies 3 0 3

Prerequisites:
Corequisites: None

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations.

FIP 221 Advanced Fire Fighting Strategies 3 0 3

Prerequisites: FIP 220
Corequisites: None

This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, command-level fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.

FIP 224 Instructional Methodology 4 0 4

Prerequisites:
Corequisites: None

This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet all requirements of NFPA 1041 Fire Service Instructor Level Two.

FIP 230 Chemistry of Hazardous Materials I 5 0 5

Prerequisites:
Corequisites: None

This course covers the evaluation of hazardous materials. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.

FIP 231 Chemistry of Hazardous Materials II 4 2 5

Prerequisites: FIP 230
Corequisites: None

This course covers hazardous materials characterization, properties, location, handling and response guidelines, hazard survey principles, and other related topics. Topics include radiation hazards, instruments, inspections, and detection of the presence of hazardous materials in industrial/commercial occupancies. Upon completion, students should be able to inspect chemical/radioactive sites and use on-site visits to gasoline and/or LPG storage facilities/chemical plants to develop a pre-plan.

FIP 232 Hydraulics and Water Distribution 3 2 4

Prerequisites: MAT 115
Corequisites: None

This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulic calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water availability tests, and demonstrate knowledge of water distribution systems.

FIP 264 Flame Propagation and Materials Rating 1 4 3

Prerequisites:
Corequisites: None

This course covers the role of interior finishes in fires, smoke obscuration and density, flame spread, pyrolysis, and other related topics. Emphasis is placed on testing equipment which includes Rack Impingement, Bench Furnace, and the two-foot tunnel. Upon completion, students should be able to understand the oper-

ation of the testing equipment and compile a reference notebook.

FIP 276 Managing Fire Services 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of fire department operative services. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles.

FLO - Floriculture

	Lecture	Lab	Credit
FLO 189 Basic Floral Design	1	2	2

Prerequisites:
Corequisites: None

This course provides general knowledge of floral design on a non-commercial level. Topics include simple corsage work, vase arrangements, and holiday novelty items. Upon completion, students should be able to tie a bow and construct simple corsages, bud vases, and holiday items.

FRE - French

	Lecture	Lab	Credit
FRE 111 Elementary French I	3	0	3

Prerequisites: None
Corequisites: FRE 181

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. When registering for this class, students will automatically be registered for FRE 181, French Lab 1. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

FRE 112 Elementary French II 3 0 3

Prerequisites: FRE 111 or consent of Division Director.
Corequisites: FRE 182

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness. When registering for this class, students will automatically be registered for FRE 182, French Lab 2. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

FRE 120 French for the Workplace 3 0 3

Prerequisites: None
Corequisites: None

This course offers applied French for the workplace to facilitate basic communication with people whose native language is French. Emphasis is placed on oral communication and career-specific vocabulary that targets business and industry. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

FRE 161 Cultural Immersion 2 3 3

Prerequisites: FRE 111
Corequisites: None

This course explores Francophone culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate an understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

FRE 181 French Lab 1 0 2 1

Prerequisites: None
Corequisites: FRE 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE 182 French Lab 2 0 2 1

Prerequisites: FRE 181 or consent of Division Director.
Corequisites: FRE 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate cultural awareness.

FRE 211 Intermediate French I 3 0 3

Prerequisites: FRE 112 or consent of Division Director.
Corequisites: FRE 281

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. When registering for this class, students will automatically be registered for FRE 281, French Lab 3. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

FRE 212 Intermediate French II 3 0 3

Prerequisites: FRE 211 or consent of Division Director.
Corequisites: None

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. When registering for this class, students will automatically be registered for FRE 282, French Lab 4. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

FRE 221 French Conversation 3 0 3

Prerequisites: Fre 212
Corequisites None

This course provides an opportunity for intensive communications in spoken French. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.

FRE 281 French Lab 3 0 2 1

Prerequisites: FRE 182 or consent of Division Director.
Corequisites: FRE 211

This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

FRE 282 French Lab 4 0 2 1

Prerequisites: FRE 281 or consent of Division Director.
Corequisites: FRE 282

This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

GEO - Geography

Lecture Lab Credit

GEO 111 World Regional Geography 3 0 3

Prerequisites:
Corequisites: None

This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

GEO 131 Physical Geography I 3 2 4

Prerequisites:
Corequisites: None

This course introduces the basic physical components that help shape the earth. Emphasis is placed on the geographic grid, cartography, weather, climate, biogeography, and soils. Upon completion, students should be able to identify these components and explain how they interact.

GEO 132 Physical Geography II 3 2 4

Prerequisites:
Corequisites: None

This course introduces the study of minerals, rocks, evolution of landforms, and consequences of landscape change. Emphasis is placed on mineral composition, fluvial processes, erosion and deposition, glaciers, and coastal processes. Upon completion, students should be able to identify these components and processes and to explain how they interact.

GEL - Geology

Lecture Lab Credit

GEL 113 Historical Geology 3 2 4

Prerequisites: GEL 111, GEL 120 GEL, 1604 or equivalent
Corequisites: None

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

GEL 120 Physical Geology 3 2 4

Prerequisites
Corequisites: None

This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

GEL 220 Marine Geology 3 2 4

Prerequisites: GEL 120
Corequisites: None

This course presents a detailed examination of coastal and sea floor geology. Emphasis is placed on coastal and sea floor landforms and processes that shape these features. Upon completion, students should be able to describe the origin and evolution of both coastal and sea floor landforms.

GER - German

Lecture Lab Credit

GER 111 Elementary German I 3 0 3

Prerequisites: None
Corequisites: GER 181

This course introduces the fundamental elements of the German language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. When registering for this class, students will automatically be registered for GER 181, German Lab 1. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 112 Elementary German II 3 0 3

Prerequisites: GER 111 or consent of Division Director.
Corequisites: GER 182

This course is a continuation of GER 111 focusing on the fundamental elements of the German language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and

demonstrate further cultural awareness. When registering for this class, students will automatically be registered for GER 182, German Lab 2. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 120 German for the Workplace 3 0 3

Prerequisites: None
Corequisites: None

This course offers applied German for the workplace to facilitate basic communication with people whose native language is German. Emphasis is placed on oral communication and career-specific vocabulary that targets business and industry. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

GER 181 German Lab 1 0 2 1

Prerequisites: None
Corequisites: GER 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness.

GER 182 German Lab 2 0 2 1

Prerequisites: GER 181 or consent of Division Director.
Corequisites: GER 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate cultural awareness.

GER 211 Intermediate German I 3 0 3

Prerequisites: GER 112 or consent of Division Director.
Corequisites: GER 281

This course provides a review and expansion of the essential skills of the German language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. When registering for this class, students will automatically be registered for GER 281, German Lab 3. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 212 Intermediate German II 3 0 3

Prerequisites: GER 211 or consent of Division Director.
Corequisites: GER 282

This course provides a continuation of GER 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. When registering for this class, students will automatically be registered for GER 282, German Lab 4. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 221 German Conversation 3 0 3

Prerequisites: GER 212
Corequisites: None

This course provides an opportunity for intensive communication in spoken German. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.

GER 281 German Lab 3 0 2 1

Prerequisites: GER 182 or consent of Division Director.
Corequisites: GER 211

This course provides an opportunity to enhance the review and expansion of the essential skills of the German language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

GER 282 German Lab 4 0 2 1

Prerequisites: GER 281 or consent of Division Director.
Corequisites: GER 212

This course provides an opportunity to enhance the review and expansion of the essential skills of the German language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

Government

(See POL Political Science)

GRA - Graphic Arts

	Lecture	Lab	Credit

GRA 110 Graphic Arts Orientation 2 0 2

Prerequisites:
Corequisites: None

This course covers the history, development, and commercial applications of the major printing processes. Topics include offset lithography, screen printing, intaglio, relief printing, and emerging technologies. Upon completion, students should be able to demonstrate an understanding of the major characteristics, advantages, and disadvantages of each process.

GRA 121 Graphic Arts I 2 4 4

Prerequisites:
Corequisites: None

This course introduces terminology, tools and materials, procedures, and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.

GRA 140 Graphic Arts Imaging 1 2 2

Prerequisites:
Corequisites: None

This course covers the use of photographic and electronic imaging techniques in the printing industry. Topics include exposure control and manipulation for a variety of process photography procedures and emerging electronic imaging techniques. Upon completion, students should be able to create line,

special effect, and halftone images by both conventional and computer imaging methods.

GRA 151 Computer Graphics I 1 3 2

Prerequisites:
Corequisites: None
This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool.

GRA 152 Computer Graphics II 1 3 2

Prerequisites: GRA 151
Corequisites: None
This course covers advanced design and layout concepts utilizing illustration, page layout, and imaging software in graphic arts. Emphasis is placed on enhancing and developing the skills that were introduced in GRA 151. Upon completion, students should be able to select and utilize appropriate software for design and layout solutions.

GRA 153 Computer Graphics III 1 3 2

Prerequisites: GRA 152
Corequisites: None
This course is a continuation of GRA 152. Emphasis is placed on advanced computer graphics hardware and software applications. Upon completion, students should be able to demonstrate competence in selection and utilization of appropriate software for specialized applications.

GRA 154 Computer Graphics IV 1 3 2

Prerequisites: GRA 153
Corequisites: None
This course is a continuation of GRA 153. Emphasis is placed on advanced techniques using a variety of hardware and software applications to produce complex projects. Upon completion, students should be able to use electronic document production tools.

GRA 161 Computer Graphics Applications I 0 3 1

Prerequisites:
Corequisites: GRA 151
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce simple graphic arts projects. Upon completion, students should be able to use the computer as a graphic arts production tool.

GRA 162 Computer Graphics Applications II 0 3 1

Prerequisites:
Corequisites: GRA 152
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce intermediate graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

GRA 163 Computer Graphics Applications III 0 3 1

Prerequisites:
Corequisites: GRA 153
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce advanced graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

GRA 164 Computer Graphics Applications IV 0 3 1

Prerequisites:
Corequisites: GRA 154
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce professional quality graphic arts projects. Upon completion, students should be able to effectively and efficiently use the computer as a graphic arts production tool.

GRA 221 Graphic Arts II 2 4 4

Prerequisites: GRA 121 and GRA 151
Corequisites: None
This course is a continuation of GRA 121. Topics include multi-color image preparation, pre-press production, control of close/hairline register in image assembly and press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of graphic arts production.

GRA 222 Graphic Arts III 2 4 4

Prerequisites: GRA 221 and GRA 152
Corequisites: None
This course is a continuation of GRA 221. Topics include advanced electronic pre-press, press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of advanced graphic arts production.

GRA 230 Substrates and Ink 2 0 2

Prerequisites:
Corequisites: None
This course covers the manufacture, purchase, and use of printing substrates and inks in the graphic arts industry. Topics include the history, development, testing, purchasing, and use of ink, paper, and specialty substrates used in printing, as well as problems associated with each. Upon completion, students should be able to demonstrate an understanding of ink and substrate relationships in the design, planning, purchase, and production of a printed job.

GRA 245 Printing Sales / Service 3 0 3

Prerequisites:
Corequisites: None
This course covers the operation of a sales, marketing, and service program for a printing company or printing supplier. Topics include marketing, prospecting, telephone sales, customer service, order entry, closing the sale, and answering objections. Upon completion, students should be able to understand the operation of sales and service in printing and printing supply organizations.

GRA 252 Imaging Techniques 1 4 3

Prerequisites: GRA 151 or GRD 151
Corequisites: None
This course covers electronic imaging and transfer and display of digital images through various media. Topics include analysis of electronic imaging, including uses, medium, outcome, storage, and display hardware and software. Upon completion, students should be able to demonstrate an understanding

of electronic imaging techniques and purposes and complete related assignments.

GRA 255 Image Manipulation I 1 3 2

Prerequisites: GRA 151 or GRD 151
Corequisites: None

This course covers applications associated with electronic image manipulation, including color correction, color separation, special effects, and image conversion. Topics include image-capturing hardware, image-processing software, and output options. Upon completion, students should be able to utilize hardware and software to acquire, manipulate, and output images to satisfy design and production.

GRA 256 Image Manipulation II 1 3 2

Prerequisites: GRA 255
Corequisites: None

This course covers electronic color separation and its relationship to multi-color printing. Topics include color theory, separation, color matching, proofing, and output of process and spot color images. Upon completion, students should be able to use hardware and image processing software to produce color separations and proofs for various printing processes.

GRA 280 Printing Management 2 0 2

Prerequisites:
Corequisites: None

This course covers management and supervision in the printing industry. Topics include planning, organization, plant layout, scheduling, goal setting, business ethics, personnel policies, leadership and personal development, OSHA and environmental laws, and employment laws. Upon completion, students should be able to demonstrate an understanding of management and supervision techniques and policies used in a variety of printing departments and organizations.

GRD - Graphic Design

Lecture Lab Credit

GRD 110 Typography I 2 2 3

Prerequisites: GRD 151
Corequisites: None

This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements. Emphasis will be placed on an understanding of the structure of typography as a communications element as well as an image-making advertising/graphic design element.

GRD 111 Typography II 2 2 3

Prerequisites: GRD 110
Corequisites: None

This course is a continuation of GRD 110. Emphasis is placed on solving challenging typographic problems. Upon completion, students should be able to understand and demonstrate advanced typographic applications. *Emphasis is placed on a variety of solutions utilizing computer and related software for advanced typographic experimentation.*

GRD 113 History of Graphic Design 3 0 3

Prerequisites: ART 115
Corequisites: None

This course covers the history of graphic design and visual communications. Topics include major trends, developments, influences, and directions. Upon completion, students should be able to understand, recognize, and analyze important historical and world-wide cultural influences found in today's marketing of ideas and products. Emphasis will be placed on the relationship of past accomplishments to advertising and graphic design currently being produced.

GRD 131 Illustration I 1 3 2

Prerequisites: ART 131 or DES 125 or GRD 121
Corequisites: None

This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork. Emphasis is on traditional media with option(s) for computer experimentation.

GRD 141 Graphic Design I 2 4 4

Prerequisites:
Corequisites: None

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects. *GRD 141 is for Graphic Arts students and will be taught only Fall semester.*

GRD 142 Graphic Design II 2 4 4

Prerequisites: ART 121, ART 131, GRD 151, GRD 110 or DES 135
Corequisites: None

This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects. Emphasis will be placed on an understanding of objective, target group and the development of the creative idea.

GRD 151 Computer Design Basics 1 4 3

Prerequisites: ART 121
Corequisites: None

This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool. Emphasis will be on QuarkXPress with options to experiment in other software programs.

GRD 152 Computer Design Tech I 1 4 3

Prerequisites: GRD 151
Corequisites: None

This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally pre-

sent their work. Emphasis will be placed on Macromedia FreeHand as a drawing/illustration software program, as well as additional study of QuarkXPress.

GRD 160 Photo Fundamentals I 1 4 3

Prerequisites:
Corequisites: None

This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality. Students will also demonstrate their abilities and understanding of basic photofinishing methods, such as maintaining consistent borders and dry mounting.

GRD 241 Graphic Design III 2 4 4

Prerequisites: DES 136 or GRD 142
Corequisites: None

This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving. Competence in analyzing and translating ideas and design solutions to clear, comprehensive visual layouts and mockups is to be stressed.

GRD 242 Graphic Design IV 2 4 4

Prerequisites: GRD 241
Corequisites: None

This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction. Students should be able to design and produce projects which demonstrate understanding and experience through the printed stage or final production level.

GRD 263 Illustrative Imaging 1 4 3

Prerequisites: GRD 151 or GRA 151
Corequisites: None

This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legalities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives. Emphasis is placed on PhotoShop and other plug-in software used to enhance or creatively alter images for print/multi-media output.

GRD 265 Digital Print Production 1 4 3

Prerequisites: GRD 152 or GRA 152
Corequisites: None

This course covers preparation of digital files for output and reproduction. Emphasis is placed on output options, separations, color proofing, and cost and design considerations. Upon completion, students should be able to prepare files and select appropriate output methods for design solutions. Students will understand the various procedures and processes of printing.

GRD 280 Portfolio Design 2 4 4

Prerequisites: GRD 152, GRD 111, GRD 241, GRD 113
Corequisites: None

This course covers the organization and presentation of a design/advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a résumé and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.

GRD 282 Advertising Copywriting 1 2 2

Prerequisites: ENG 111
Corequisites: None

This course covers copywriting for print, electronic, and broadcast advertising and promotion. Topics include advertising strategies, proposals, headlines, slogans, and text copy for various types of advertising. Upon completion, students should be able to write and articulate advertising proposals and understand the ethical and regulatory environment for advertising.

GRO - Gerontology

	Lecture	Lab	Clinic	Credit
GRO 120 Gerontology	3	0	0	3

Prerequisites: PSY 150
Corequisites: None

This course covers the psychological, social, and physical aspects of agin. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.

GRO 220 Psy/Soc Aspects of Aging 3 0 0 3

Prerequisites: PSY 150
Corequisites: None

This course introduces the individual and social aspects of the aging process. Topics include psychological and social factors of aging, roles of older adults within families, work, and community; and adjustments to aging and retirement. *This course is a unique concentration requirement of the Gerontology concentration in the Human Services technology program.*

GRO 230 Health, Wellness, & Nutri. 3 2 0 4

Prerequisites:
Corequisites: None

This course covers basic concepts of health, wellness, and nutrition related to aging. Emphasis is placed on nutrition and diet, physical activity and exercise, and maintenance of well-being. Upon completion, students should able to identify health, wellness, and nutrition concepts related to aging. *This course is a unique concentration requirement of the Gerontology concentration in the Human Services Technology program.*

GRO 240 Gerontology Care Managing 2 0 0 2

Prerequisites: GRO 120
Corequisites: None

This course covers community resources, and discusses care management of older adults. Care management includes assessment, care planning, evaluation, issues of family care, high-risk care and self-care.

HEA - Health

	Lecture	Lab	Credit
HEA 110 Personal Health / Wellness	3	0	3

Prerequisites:
Corequisites: None
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 112 First Aid and CPR 1 2 2

Prerequisites:
Corequisites: None
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. Students meeting the requirements of this course will receive certificates of completion. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 120 Community Health 3 0 3

Prerequisitee:
Corequisites: None
This course provides information about contemporary community health and school hygienic issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 130 Health-Adult Sexuality 3 0 3

Prerequisites:
Corequisites: None
This course provides information about health issues related to adult human sexuality. Topics include basic reproductive anatomy, contraceptive methods, STDs, and related information. Upon completion, students should be able to identify various related community agencies and available resources relating to sexual issues. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 140 Health-Child Sexuality 3 0 3

Prerequisites:
Corequisites: None
This course provides health-related information about the concepts of human sexuality in children. Topics include typical and atypical sexual behaviors and health issues relating to children's sexuality and relationships. Upon completion, students should be able to identify health issues relating to children's sexual development and behavior. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 191 Selected Topics in Health Education 1 0 1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 192 Selected Topics in Health Education 2 0 2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HEA 193 Selected Topics in Health Education 3 0 3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HIT - Health Information Technology

	Lecture	Lab	Clinic	Credit
HIT 110 Health Information Orientation	2	0	0	2

Prerequisites: None
Corequisites: None
This course introduces health information management and its role in health care delivery systems. Emphasis is placed on the role and responsibilities of health information professionals in a variety of settings. Upon completion, students should be able to demonstrate an understanding of health information management and health care organizations, professions, and trends.

HIT 112 Health Law and Ethics 3 0 0 3

Prerequisites: None
Corequisites: None
This course covers the impact of legal issues on health information management and provides an overview of the judicial system and legislative process. Topics include confidentiality, release of information, record retention, authentication, informed consent, subpoenaed information, security of computerized health information, liability, and legislative trends. Upon completion, students should be able to respond appropriately to requests for health information.

HIT 114 Record Systems / Standards 2 3 0 3

Prerequisites: None
Corequisites: None
This course covers basic concepts and techniques for managing and maintaining health record systems. Topics include health record content, qualitative analysis, format, record control, storage, retention, forms design/control, indices and registers, and numbering and filing systems. Upon completion, students should be able to demonstrate an understanding of health record systems, including their maintenance and control.

HIT 122 Directed Practice I 0 0 3 1

Prerequisites: HIT 112, HIT 114
Corequisites: None
This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

HIT 124 Directed Practice II 1 0 3 2

Prerequisites: HIT 216, HIT 210
Corequisites: None
This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

HIT 210 Health Care Statistics 3 2 0 4

Prerequisites: MAT 115, HIT 114
Corequisites: None
This course covers maintenance, compilation, analysis, and presentation of health care statistics. Topics include basic statistical principles, morbidity and mortality, commonly computed hospital rates, uniform reporting requirements, and selection and construction of data displays. Upon completion, students should be able to calculate morbidity, mortality, and commonly computed hospital rates; comply with information reporting requirements; and analyze/present statistical data.

HIT 212 Coding/Classification I 3 3 0 4

Prerequisites: BIO 169, MED 122, HIT 226
Corequisites: None
This course is the first of a two-course sequence which provides a foundation in coding and classification systems in a variety of health care settings. Emphasis is placed on ICD-9-CM coding conventions, rules, methodology and sequencing, data sets, documentation requirements, information indexing and retrieval, quality control, and coding resources. Upon completion, students should be able to apply coding principles to correctly assign ICD-9-CM codes.

HIT 214 Coding /Classification II 3 3 0 4

Prerequisites: HIT 212
Corequisites: None
This course is the second of a two-course sequence which continues the study of coding and classification systems in a variety of health care settings. Topics include classification and coding systems emphasizing ICD-9-CM, HCPCS/CPT-4, reimbursement/billing systems, encoders/groupers, case mix management, and coding's relationship to managed care. Upon completion, students should be able to apply coding principles to correctly assign ICD-9-CM and HCPCS/CPT-4 codes and apply systems to optimize reimbursement.

HIT 216 Quality Management 2 2 0 3

Prerequisites: HIT 114
Corequisites: None
This course introduces principles of quality improvement, utilization management, and risk management in health care. Topics include the continuous quality improvement philosophy, including tools, data analysis/application, and related committee functions; utilization management and risk management; and credentialing, accreditation and regulation. Upon completion, students should be able to apply performance improvement techniques, analyze/display data, apply level of care criteria, and participate in risk management activities.

HIT 218 Management 3 0 0 3

Prerequisites: None
Corequisites: None
This course covers management and supervision principles as applied to health care settings. Emphasis is placed on problem-solving and communication skills related to planning, organization, directing, controlling, and budgeting. Upon completion, students should be able to apply management and supervision principles to health care settings.

HIT 220 Computers in Health Care 1 2 0 2

Prerequisites: CIS 110
Corequisites: None
This course covers basic computer system architecture, file structure, and design for health care settings. Topics include system analysis, design, security, and selection for a variety of hardware environments. Upon completion, students should be able to design, implement, evaluate, and maintain automated information systems in health care settings.

HIT 222 Directed Practice III 0 0 6 2

Prerequisites: HIT 122
Corequisites: None
This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

HIT 226 Principles of Disease 3 0 0 3

Prerequisites: BIO 166 or BIO 169
Corequisites: None
This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.

HIT 280 Professional Issues 2 0 0 2

Prerequisites: HIT 112, HIT 212, HIT 210
Corequisites: HIT 214
This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competency in entry-level domains, tasks, and subtasks for health information technology.

HET - Heavy Equipment and Transport Technology — Diesel Mechanics

See also HYD-Hydraulics for additional courses.

	Lecture	Lab	Credit

HET 110 Diesel Engines 3 9 6

Prerequisites:
Corequisites: None

This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

HET 112 Diesel Electrical Systems 3 6 5

Prerequisites:
Corequisites: None

This course introduces electrical theory and applications as they relate to diesel powered equipment. Topics include lighting, accessories, safety, starting, charging, instrumentation, and gauges. Upon completion, students should be able to follow schematics to identify, repair, and test electrical circuits and components.

HET 115 Electronic Engines 2 3 3

Prerequisites:
Corequisites: None

This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

HET 116 Air Conditioning / Diesel Equipment 1 2 2

Prerequisites:
Corequisites: None

This course provides a study of the design, theory, and operation of heating and air conditioning systems in newer models of medium and heavy duty vehicles. Topics include component function, refrigerant recovery, and environmental regulations. Upon completion, students should be able to use proper techniques and equipment to diagnose and repair heating/air conditioning systems according to industry standards.

HET 118 Mechanical Orientation 2 0 2

Prerequisites: None
Corequisites: None
Start Term: 1999*03

This course introduces the care and safe use of power and hand tools. Topics include micrometers, dial indicators, torque wrenches, drills, taps dies, screw extractors, thread restorers, and fasteners. Upon completion, students should be able to select and properly use tools for various operations.

HET 119 Mechanical Transmissions 2 2 3

Prerequisites:
Corequisites: None

This course introduces the operating principles of mechanical medium and heavy duty truck transmissions. Topics include multiple counter shafts, power take-offs, sliding idler clutches, and friction clutches. Upon completion, students should be able to diagnose, inspect, and repair mechanical transmissions.

HET 120 Introduction to Mobile Equipment 1 2 2

Prerequisites: None
Corequisites: None
Start Term: 1999*03

This course introduces the functions and systems of modern medium and heavy-duty vehicles. Topics include use of technical manuals, tools and equipment, record keeping, material safety data sheets, and work habit safety. Upon completion, students should be able to use technical manuals, tools, equipment and material safety data sheets.

HET 125 Preventive Maintenance 1 3 2

Prerequisites:
Corequisites: None

This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and roadability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

HET 126 Prevent Maintenance Lab 0 3 1

Prerequisites: None
Corequisites: HET 125

This course provides a laboratory setting to enhance preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Emphasis is placed on practical experiences that enhance the topics presented in HET 125. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in HET 125.

HET 127 Shop Rules and Regulations 1 0 1

Prerequisites:
Corequisites: None

This course introduces safety, OSHA, and EPA general requirements used in the mobile equipment industry. Topics include fire extinguisher use, MSDS sheets, oil contamination, protective gear, and other related topics. Upon completion, students should be able to properly use fire extinguishers and demonstrate knowledge of applicable general safety, OSHA, and EPA regulations.

HET 128 Medium / Heavy Duty Tune-up 1 2 2

Prerequisites:
Corequisites: None

This course introduces tune-up and troubleshooting according to manufacturers' specifications. Topics include troubleshooting engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students should be able to troubleshoot, diagnose, and repair engines and components using appropriate diagnostic equipment.

HET 217 Tractor Performance 1 2 2

Prerequisites: None
Corequisites: None
Start Term: 1999*03

This course covers procedures for attaining optimum performance of agriculture tractors. Emphasis is placed on problem solving using dynamometers, test procedures, and safety. Upon completion, students should be able to use test equipment to diagnose engines and drive components and adjust tractors to achieve optimum performance.

HET 230 Air Brakes 1 2 2

Prerequisites:
Corequisites: None

This course introduces the operation and design of air braking systems used on trucks. Topics include safety, governors, compressors, and supporting systems. Upon completion, students should be able to diagnose, disassemble, inspect, repair, and reassemble air brake systems.

HET 231 Medium / Heavy Duty Brake Systems 1 3 2

Prerequisites:
Corequisites: None

This course covers the theory and repair of braking systems used in medium and heavy duty vehicles. Topics include air, hydraulic, and ABS system diagnosis and repair. Upon completion, students should be able to troubleshoot, adjust, and repair braking systems on medium and heavy duty vehicles.

HET 233 Suspension and Steering 2 4 4

Prerequisites:
Corequisites: None

This course introduces the theory and principles of medium and heavy duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings, and coupling systems. Upon completion, students should be able to troubleshoot, adjust, and repair suspension and steering components on medium and heavy duty vehicles.

HIS - History

Lecture Lab Credit

HIS 111 World Civilizations I 3 0 3

Prerequisites:
Corequisites: None

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 112 World Civilizations II 3 0 3

Prerequisites:
Corequisites: None

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 131 American History I 3 0 3

Prerequisites:
Corequisites: None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 132 American History II 3 0 3

Prerequisites:
Corequisites: None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 165 Twentieth-Century World 3 0 3

Prerequisites:
Corequisites: None

This course includes the major developments, issues, and ideas in twentieth-century world history. Emphasis is placed on contrasting political systems, the impact of science and technology, and the philosophical temperament of twentieth-century people. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the twentieth century.

HIS 193 Selected Topics in History 1-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program of discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HIS 221 African-American History 3 0 3

Prerequisites:
Corequisites: None

This course is a study of African-American from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans.

HIS 226 The Civil War 3 0 3

Prerequisites:
Corequisites: None

This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the war's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War.

HIS 231 Recent American History 3 0 3

Prerequisites:
Corequisites: None

This course is a study of American society from the post-Depression era to the present. Topics include World War II, the Cold War, social unrest, the Vietnam War, the Great Society, and current political trends. Upon completion, students should

be able to analyze significant political, socioeconomic, and cultural developments in recent America.

HIS 236 North Carolina History 3 0 3

Prerequisites:
Corequisites: None

This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, ante-bellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina.

Honors

(See SEM Honors/Seminars)

HOR - Horticulture Technology

Also see FLO Floriculture, COE Cooperative Education and TRF Turfgrass Management for additional course descriptions.

Lecture Lab Credit

HOR 112 Landscape Design I 2 3 3

Prerequisites: HOR 160 or HOR 260 or Division Permission
Corequisites: None

This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization. Upon completion, students should be able to read, plan, and draft a landscape design.

HOR 114 Landscape Construction 2 2 3

Prerequisites:
Corequisites: None

This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.

HOR 116 Landscape Management I 2 2 3

Prerequisites:
Corequisites: None

This course covers information and skills necessary to analyze a property and develop a management schedule. Emphasis is placed on property measurement, plant condition, analysis of client needs, and plant culture needs. Upon completion, students should be able to analyze a property, develop management schedules, and implement practices based on client needs.

HOR 118 Equipment Operation and Maintenance 1 3 2

Prerequisites:
Corequisites: None

This course covers the proper operation and maintenance of selected equipment used in horticulture. Emphasis is placed on the maintenance, minor repairs, safety devices, and actual operation of selected equipment. Upon completion, students should be able to design a maintenance schedule, service equipment, and demonstrate safe operation of selected equipment.

HOR 124 Nursery Operations 2 3 3

Prerequisites:
Corequisites: None

This course covers nursery site and crop selection, cultural practices, and production and marketing methods. Topics include site considerations, water availability, equipment, irrigation, fertilization, containers, media, and pest control. Upon completion, students should be able to design and implement a nursery operation and grow and harvest nursery crops.

HOR 134 Greenhouse Operations 2 2 3

Prerequisites:
Corequisites: None

This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.

HOR 150 Introduction to Horticulture 2 0 2

Prerequisites:
Corequisites: None

This course covers the history, development, and basic techniques of horticulture. Topics include propagation techniques, planting procedures, watering and fertility, plant growth, pest and disease control, and garden design and history. Upon completion, students should be able to demonstrate an understanding of the basic principles of horticulture. Students will explore horticultural careers, organizations, and reference materials.

HOR 154 Introduction to Horticulture Therapy 2 4 4

Prerequisites:
Corequisites: None

This course introduces the concept of horticulture therapy and how it can be applied to improve human well-being. Emphasis is placed on developing a horticulture therapy program, planning activities, and adjusting activities based on the age, disability, or need of the individual. Upon completion, students should be able to develop project ideas, write lesson plans, and lead informal classes using horticulture therapy techniques.

HOR 160 Plant Materials I 2 2 3

Prerequisites:
Corequisites: None

This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 162 Applied Plant Science 2 2 3

Prerequisites:
Corequisites: None

This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology, and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.

HOR 164 Horticulture Pest Management 2 2 3

Prerequisites:
Corequisites: None

This course covers the identification and control of plant pests including insects, diseases, and weeds. Topics include pest identification and chemical regulations, safety, and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license. Students will apply the Integrated Pest Management Model in plant management

HOR 166 Soils & Fertilizers 2 2 3

Prerequisites:
Corequisites: None

This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation, classification, physical and chemical properties, testing, fertilizer application, and other amendments. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media.

HOR 168 Plant Propagation 2 2 3

Prerequisites:
Corequisites: None

This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

HOR 170 Horticulture Computer Application 1 3 2

Prerequisites: HOR 112 or Division permission
Corequisites: None

This course introduces computer programs as they apply to the horticulture industry. Emphasis is placed on applications of software for plant identification, design, and irrigation. Upon completion, students should be able to use computer programs in horticultural situations. Students will create a CAD drawing of a landscape.

HOR 213 Landscape Design II 2 2 3

Prerequisites: HOR 112
Corequisites: None

This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should be able to read landscape design blueprints, develop cost estimates, and implement the design. Students will expand their use of design styles, techniques, and materials and will improve their presentation skills.

HOR 215 Landscape Irrigation 2 2 3

Prerequisites:
Corequisites: None

This course introduces basic irrigation design, layout, and installation. Topics include site analysis, components of irrigation systems, safety, types of irrigation systems, and installation techniques. Upon completion, students should be able to design and install basic landscape irrigation systems.

HOR 251 Insects & Diseases 2 2 3

Prerequisites:
Corequisites: None

This course introduces insects and diseases of economic importance to horticultural crops. Topics include insect life cycles and identifying characteristics; plant diseases, including their signs and symptoms; control methods; and insect scouting for IPM. Upon completion, students should be able to demonstrate an understanding of insect and disease identification, collection, and control.

HOR 253 Horticulture Turfgrass 2 2 3

Prerequisites: HOR 162 or HOR 166
Corequisites: None

This course covers information and skill development necessary to establish and manage landscape turfgrasses. Topics include grass identification, establishment, cultural requirements, application of control products, fertilization, and overseeding techniques. Upon completion, students should be able to analyze a landscape site and determine those cultural and physical activities needed to establish or manage a quality turf.

HOR 255 Interiorscapes 1 2 2

Prerequisites:
Corequisites: None

This course covers plant selection, design, and management for interior settings. Topics include tropical plant identification, cultural requirements, insect and disease identification and control, and design and management requirements for interior plants. Upon completion, students should be able to design, install, and manage plants in interior settings.

HOR 257 Arboriculture Practices 1 3 2

Prerequisites: HOR 160
Corequisites: None

This course covers the culture and maintenance of trees and shrubs. Topics include fertilization, pruning, approved climbing techniques, pest control, and equipment use and safety. Upon completion, students should be able to properly prune trees and shrubs and perform arboricultural practices.

HOR 260 Plant Materials II 2 2 3

Prerequisites: None
Corequisites: None

This course is a continuation of HOR 160 and covers additional plants. Emphasis is placed on reinforcement of skills and the introduction of additional plants. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 265 Advanced Plant Materials 1 2 2

Prerequisites: HOR 160 or HOR 260
Corequisites: None

This course covers important landscape plants which were not covered in HOR 160 and HOR 260. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements, and landscape uses. Upon completion, students should be able to correctly select plants for specific landscape uses.

HOR 273 Horticulture Management and Marketing 3 0 3

Prerequisites:
Corequisites: None

This course covers the steps involved in starting or managing a horticultural business. Topics include financing, regulations, market analysis, employer/employee relations, formulation of business plans, and operational procedures in a horticultural business. Upon completion, students should be able to assume ownership or management of a horticultural business.

HRM - Hotel and Restaurant Management

	Lecture	Lab	Credit
HRM 110 Introduction to Hospitality	2	0	2

Prerequisites:
Corequisites: None
This course covers the growth and progress of the hospitality industry. Topics include financing, hotels, restaurants, and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist in the hospitality industry.

HRM 115 Housekeeping 3 0 3

Prerequisites: COM 110
Corequisites: None
This course covers the scope, responsibilities, communications, terminology, materials, and concerns specific to hotel housekeeping. Topics include management and supervision of housekeeping staff in the proper cleaning and sanitation of rooms and public areas, budgeting, purchasing, security, and inventory control. Upon completion, students should be able to understand and apply the principles of organization and management of a housekeeping department.

HRM 115A Housekeeping Lab 0 2 1

Prerequisites: COM 110
Corequisites: HRM 115
This course is a laboratory to accompany HRM 115. Emphasis is placed on the development of skills for the performance of housekeeping tasks. Upon completion, students should be able to demonstrate mastery of housekeeping skills.

HRM 120 Front Office Procedures 3 0 3

Prerequisites: CIS 111
Corequisites: None
This course provides a systematic approach to hotel front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and rate management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services. This is a computer-based class requiring basic computer competency.

HRM 120A Front Office Procedures Lab 0 2 1

Prerequisites: CIS 111
Corequisites: HRM 120
This course is laboratory to accompany HRM 120. Emphasis is placed on practical computer applications of theory covered in HRM 120. Upon completion, students should be able to demonstrate a basic proficiency in computer-based, front office applications. This is a computer-based class requiring basic computer competency.

HRM 140 Hospitality Tourism Law 3 0 3

Prerequisites:
Corequisites: None
This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system to prevent or minimize organizational liability.

HRM 210 Meetings and Conventions 3 0 3

Prerequisites:
Corequisites: None
This course introduces organization, arrangement, and operation of conventions, trade shows, professional meetings, and food functions. Emphasis is placed on the methods of marketing, selling, and servicing conventions and trade shows and the division of administrative responsibilities in their operation. Upon completion, students should be able to describe and apply the principles of management to multi-function, multi-day conferences and events.

HRM 220 Food and Beverage Controls 3 0 3

Prerequisites: MAT 115
Corequisites: None
This course introduces controls and accounting procedures used in the hospitality industry. Topics include analysis of financial statements, reports, and costs. Upon completion, students should be able to understand and apply food, beverage, and labor cost control systems.

HRM 220A Food and Beverage Controls Lab 0 2 1

Prerequisites:
Corequisites: HRM 220
This course is a laboratory to accompany HRM 220. Emphasis is placed on practical computer applications of food and beverage control procedures. Upon completion, students should be able to demonstrate proficiency in computer-based control applications.

HRM 225 Beverage Management 2 0 2

Prerequisites:
Corequisites: None
This course introduces the management of beverage operations in a hospitality operation. Topics include history, service, procurement, storage, and control of wines, fermented and distilled beverages, sparkling waters, coffees, and teas. Upon completion, students should be able to demonstrate knowledge of the beverages consumed in a hospitality operation.

HRM 235 Hospitality Quality Management 3 0 3

Prerequisites:
Corequisites: None
This course introduces the various schools of thought in achievement and implementation of quality standards for the hospitality industry. Emphasis is placed on developing and maintaining quality in the delivery of the tangible and intangible aspects of the service product. Upon completion, students should be able to demonstrate an understanding of quality service principles and apply them within a hospitality/service environment.

HRM 240 Hospitality Marketing 3 0 3

Prerequisites:
Corequisites: None
This course covers planning, organizing, directing, and analyzing the results of marketing programs in the hospitality industry. Emphasis is placed on market segmentation and analysis, product and image development, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to prepare a marketing plan applicable to the hospitality industry.

HRM 280 Hospitality Management Problems 3 0 3

Prerequisites:
Corequisites: None
This course addresses current global, national, and local concerns and issues in the hospitality industry. Emphasis is placed on problem-solving skills using currently available resources. Upon completion, students should be able to apply hospitality management principles to real challenges facing industry managers.

HSE - Human Services Technology

		Lecture	Lab	Clinic	Credit
HSE 110	**Introduction to Human Services**	2	2	0	3

Prerequisites:
Corequisites: None
This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

HSE 112 Group Process I 1 2 0 2

Prerequisites: Enrollment in the HSE program
Corequisites: None
This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

HSE 120 Interpersonal Relations 3 0 0 3

Prerequisites:
Corequisites: None
This course introduces the interpersonal and communication skills used in helping relationships and professions. Topics include self-understanding; growth techniques; assertive, passive, and aggressive behaviors; and effective communications in the helping role. Upon completion, students should be able to demonstrate skills for effective communications in helping relationships which promote understanding of self, other people, and personal growth.

HSE 123 Interviewing Techniques 2 2 0 3

Prerequisites:
Corequisites: None
This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

HSE 125 Counseling 2 2 0 3

Prerequisites: PSY 150
Corequisites: None
This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

HSE 127 Conflict Resolution 2 2 0 3

Prerequisites:
Corequisites: None
This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.

HSE 210 Human Services Issues 2 0 0 2

Prerequisites: Successful completion of 12 SHC in the HSE program
Corequisites: None
This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

HSE 212 Group Process II 1 2 0 2

Prerequisites: HSE 112
Corequisites: None
This course is a continuation of the study of interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to demonstrate their ability to communicate with others and facilitate communications between others.

HSE 220 Case Management 2 2 0 3

Prerequisites: HSE 110
Corequisites: None
This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from initial contact through termination of services.

HSE 225 Crisis Intervention 3 0 0 3

Prerequisites:
Corequisites: None
This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

HSE 227 Children and Adolescence in Crisis 3 0 0 3

Prerequisites:
Corequisites: None
This course covers the crises affecting children and adoles-

cents in contemporary society. Emphasis is placed on abuse and neglect, suicide and murder, dysfunctional family living, poverty, and violence. Upon completion, students should be able to identify and discuss intervention strategies and available services for the major contemporary crises affecting children and adolescents.

HUM - Humanities

	Lecture	Lab	Credit

HUM 115 Critical Thinking 3 0 3

Prerequisites: ENG 101 or ENG 111
Corequisites: None

This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

HUM 130 Myth in Human Culture 3 0 3

Prerequisites: None
Corequisites: None

This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 160 Introduction to Film 2 2 3

Prerequisites: ENG 111 or consent of Division Director
Corequisites: None

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

Note: This course is a Writing Intensive Elective for UNCC.

HUM 211 Humanities I 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 212 Humanities II 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 220 Human Values and Meaning 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 230 Leadership Development 3 0 3

Prerequisites: ENG 111 or consent of Division Director
Corequisites: None

This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations.

HYD - Hydraulics

	Lecture	Lab	Credit

HYD 110 Hydraulics/Pneumatics I 2 3 3

Prerequisites:
Corequisites: None

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics inclue standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, student should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

HYD 112 Hydraulics/Medium/Heavy Duty 1 2 2

Prerequisites:
Corequisites: None

This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

HYD 121 Hydraulics/Pneumatics II 1 3 2

Prerequisites:
Corequisites: None

This course is a continuation of HYD 110 and provides further investigation into fluid power systems. Topics include advanced system components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, operation, and maintenance of fluid power components and systems.

HYD 210 Advanced Hydraulics 1 3 2

Prerequisites:HYD 110 or HYD 111
Corequisites: None

This course covers advanced hydraulic systems. Emphasis is placed on advanced hydraulic systems and components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, operation, and maintenance of hydraulic components and systems.

ISC - Industrial Science

See also ATR-Automation, DDF- Design Drafting, DFT-Drafting, MEC-Mechanical Engineering Technology, and PLA-Plastics for other courses.

Lecture Lab Credit

ISC 110 Workplace Safety 1 0 1

Prerequisites:
Corequisites: None

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

ISC 112 Industrial Safety 2 0 2

Prerequisites:
Corequisites: None

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

ISC 115 Construction Safety 2 0 2

Prerequisites:
Corequisites: None

This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds, and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

ISC 121 Environmental Health & Safety 3 0 3

Prerequisites:
Corequisites: None

This course covers workplace environmental, health, and safety issues. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental, health, and safety issues.

ISC 131 Quality Management 3 0 3

Prerequisites:
Corequisites: None

This course provide a study and analysis of the aspects and implications of quality management that lead to customer satisfaction through continuous quality improvement. Topics include Total Quality Management, ISO 9000, organizing for quality, supplier/vendor relationships, and the role of leadership in quality management. Upon completion, students should be able to demonstrate an understanding of quality management concepts and techniques.

ISC 132 Manufacturing Quality Control 2 3 3

Prerequisites:
Corequisites: None

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

ISC 210 Operations and Production Planning 3 0 3

Prerequisites: Completion of Curriculum math requirement
Corequisites: None

This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

ISC 211 Production Planning 2 2 3

Prerequisites: MEC 111 and MEC 161
Corequisites: None

This course introduces concepts and techniques of production planning and control. Topics include forecasting, purchasing and inventory control, and production capacity/planning/control, including routing and scheduling. Upon completion, students should be able to apply these concepts and techniques to industrial problems dealing with production planning.

ISC 212 Metrology 1 2 2

Prerequisites:
Corequisites: None

This course covers the principles and techniques of modern practical metrology and inspection methods. Topics include precision, accuracy, standards, and calibration. Upon completion, students should be able to perform various roles within a metrology system.

Interior Design

(See DES Interior Design)

INT - International Business

Lecture Lab Credit

INT 110 International Business 3 0 3

Prerequisites:
Corequisites: None

This course provides an overview of the environment, con-

cepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

INT 180 Travel Study Abroad 3 0 3

Prerequisites: Completion of 25 major hours in International Business concentration

Corequisites: None

This course is designed to apply language and theoretical skills in an appropriate international business setting in a foreign country. Emphasis is placed on strengthening foreign language skills, performing with greater competence and confidence in the international workplace, and completing objectives outlined in training plan. Upon completion, students should be able to understand and utilize cultural patterns and business practices in the region of study.

INT 210 International Trade 3 0 3

Prerequisites: INT 110

Corequisites: None

This course covers international business trade practices and foreign market research. Emphasis is placed on current trends of US trade practices in foreign countries and how to engage in international trade and acquire foreign marketing information. Upon completion, students should be able to formulate an overall product policy for the international marketplace.

INT 220 International Economics 3 0 3

Prerequisites: INT 110 and ECO 151 or ECO 251 or ECO 252

Corequisites: None

This course introduces the forces and criteria for the development of a new international economic order. Emphasis is placed on balance of payments, foreign exchange rates and their determination, International Monetary System, and arguments for and against free trade and protectionism. Upon completion, students should be able to describe economic principles and concepts of international trade. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.

INT 230 International Law 3 0 3

Prerequisites: INT 110 and BUS 115

Corequisites: None

This course is designed to develop an understanding of the different theories on international law and their effect on international trade. Emphasis is placed on concepts of contracts, international transactions, major organizations in international trade, establishment of treaties, economic areas, and US laws affecting international trade. Upon completion, students should be able to apply theories and concepts to international trade and transactions. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.

ITN — Internet Technologies

	Lecture	Lab	Credit
CIS 172 Introduction to the Internet	2	3	3

Prerequisites: None

Corequisites: None

This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, listservers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools.

CSC 160 Intro to Internet Programming 2 2 3

Prerequisites: CIS*172

Corequisites: None

This course introduces client-side Internet programming using HTML and Javascript. Topics include use of frames and tables, use of meta tags, Javascript techniques for site navigation. Upon completion, students should be able to write HTML documents that incorporate programming to provide web page organization and navigation functions.

ITN 110 Intro to Web Graphics 2 2 3

Prerequisites: None

Corequisites: None

This course is the first of two courses covering the creation of web graphics, addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, type conversion, RGB color, the browser-safe palette, elementary special effects, image maps, and other related topics. Upon completion, students should be able to create graphics such as banners, buttons, backgrounds, and other graphics for Web pages.

ITN 120 Intro to Internet Multimedia 2 2 3

Prerequisites: None

Corequisites: None

This is the first of two courses covering the creation of Internet Multimedia. Topics include Internet multimedia file types, file type conversion, acquisition of digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create Internet multimedia presentations utilizing a variety of methods and applications.

ITN 140 Web Development Tools 2 2 3

Prerequisites:None

Corequisites:None

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

ITN 150 Internet Protocols 2 2 3

Prerequisites: None

Corequisites: None

This course introduces the student to the application protocols used on the Internet. Topics include HTTP, Secure HTTP, TCP/IP, and related applications such as FTP, TELNET, and PING. Upon completion, students should be able to use the protocols as they pertain to the Internet, as well as, setup and maintain these protocols.

ITN 160 Principles of Web Design 2 2 3

Prerequisites: None
Corequisites: None

This course introduces intermediate to advanced web page design techniques. Topics include effective use of graphics, fonts, colors, navigation tools, advanced markup language elements, as well as a study of bad design techniques. Upon completion, the student should be able to employ advanced design techniques to create high impact and highly functional web pages.

ITN 180 Active Server Programming 2 2 3

Prerequisites: None
Corequisites: None

This course introduces Active Server Programming. Topics include Jscript, VBScript, HTML forms processing, and the Active Server Object Model. Upon completion, students should be able to create and maintain Active Server applications.

ITN 210 Advanced Web Graphics 2 2 3

Prerequisites: ITN*110
Corequisites: None

This course is the second of two courses covering web graphics. Topics include graphics acquisition using scanners and digital cameras, graphics optimization, use of masks, advanced special effects, GIF animation, and other related topics. Upon completion, students should be able to create graphics that are optimized for size and graphic file type, properly converted from digitized sources and create useful animated graphics.

ITN 220 Advanced Internet Multimedia 2 2 3

Prerequisites: ITN*120
Corequisites: None

This is the second of two courses covering Internet multimedia. Topics include use of advanced Internet multimedia applications. Upon completion, students should be able to create interactive Internet multimedia presentations.

ITN 240 Internet Security 2 2 3

Prerequisites: None
Corequisites: None

This course covers security issues related to Internet services. Topics include the operating system and Internet service security mechanisms. Upon completion, students should be able to implement security procedures for operating system level and server level alerts.

ITN 250 Implementing Internet Services 2 2 3

Prerequisites: None
Corequisites: None

This course covers the setup and configuration of news, mail, ftp, and WWW services. Topics include selection and installation of software to support common Internet services and related topics. Upon completion, students should be able to install and configure the most commonly used Internet service software.

ITN 260 Intro to E-Commerce 2 2 3

Prerequisites: None
Corequisites: None

This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.

IPP - Interpreter Education

(See also ASL American Sign Language)

Lecture Lab Credit

IPP 111 Introduction to Interpretation 2 0 2

Prerequisites:
Corequisites: None

This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, and working conditions. Topics include specialized jargon, code of ethics, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to explain the rationale for placement of interpreters and apply ethical standards to a variety of working situations.

IPP 112 Comparative Cultures 4 0 4

Prerequisites: ASL 112
Corequisites: None

This course introduces observable attributes of deaf and non-deaf individuals and the social, political, educational, vocational, and historical issues faced by each. Topics include value systems of deaf and non-deaf individuals, enculturation stages, sociolinguistic continuum of language use within the deaf community, and cross-cultural management. Upon completion, students should be able to compare deaf and non-deaf cultures and discuss how prejudices are reflected in and impact on communication interactions.

IPP 130 Analytical Skills for Interpreters 1 4 3

Prerequisites: ASL 112
Corequisites: None

This course is designed to improve cognitive processes associated with interpreting, listening, short-term memory, semantic equivalence, visual/auditory processing, thought organization, and logic. Emphasis is placed on developing skills necessary to generate equivalent messages between ASL and English. Upon completion, students should be able to consecutively interpret non-technical, interactive messages between ASL and English.

IPP 150 Linguistics of American Sign Language (ASL) 2 0 2

Prerequisites: ASL 112
Corequisites: None

This course expands skills in generating appropriate ASL. Emphasis is placed on applying grammatical and syntactical features of ASL to a variety of technical and non-technical topics. Upon completion, students should be able to comprehend and respond with increasing fluency in ASL.

IPP 151 American Sign Language (ASL) / Numbers & Fingerspell 0 2 1

Prerequisites: ASL 111
Corequisites: None

This course provides an in-depth study of number systems and fingerspelling techniques in ASL. Emphasis is placed on generating and receiving numbers and fingerspelling in context. Upon completion, students should be able to accurately express and receive numbers and fingerspelling.

IPP 152 American Sign Language (ASL) / English Translation 3 0 3

Prerequisites: ASL 112
Corequisites: None

This course provides a study of the component parts of a cultural scheme and the manner in which ASL and English differ. Emphasis is placed on analyzing, discussing, and translating basic ASL and English texts. Upon completion, students should be able to discuss and apply techniques of cross-cultural communication and translation between deaf and non-deaf communities.

IPP 153 Introduction to Discourse Analysis 1 4 3

Prerequisites: ASL 112
Corequisites: None

This course introduces discourse types and functions and specialized vocabulary and examines the specific nature of ASL discourse. Emphasis is placed on applying and practicing a model of analysis utilizing specialized vocabulary. Upon completion, students should be able to utilize specialized vocabulary and demonstrate ASL discourse features.

IPP 161 Consecutive Interpreting 2 6 5

Prerequisites: IPP 152
Corequisites: None

This course introduces the process of ASL/English consecutive interpreting in a variety of interview, meeting, and small conference settings. Emphasis is placed on generating equivalent messages between ASL and English. Upon completion, students should be able to discuss and apply the principles of the protocol of consecutive interpreting.

IPP 221 Simultaneous Interpreting I 2 6 5

Prerequisites: IPP 161
Corequisites: None

This course introduces simultaneous ASL/English interpreting through a variety of expository texts originating in group, meeting, and conference settings. Emphasis is placed on analyzing expository texts, identifying registers, and applying principles of the protocol of interpreting. Upon completion, students should be able to apply the appropriate linguistic and/or cultural adjustments required to generate equivalent messages.

IPP 222 Simultaneous Interpreting II 2 6 5

Prerequisites: IPP 221
Corequisites: None

This course provides additional experience in interpreting a variety of situations which occur during basic expository presentations. Emphasis is placed on interpreting texts which serve an informational, hortatory, and/or procedural function. Upon completion, students should be able to apply the appropriate linguistic and cultural adjustments necessary to achieve an equivalent register in the interpretation.

IPP 240 Ethical Standards & Practices 3 0 3

Prerequisites:
Corequisites: IPP 221

This course develops intellectual and ethical decision-making abilities and considers common ethical dilemmas that arise within the interpreting process. Topics include a model of ethical/intellectual development and the application of the model to interpreting practices. Upon completion, students should be able to discuss ethical resolution to various case studies and apply recognized principles of professional behavior to the interpreting process.

JOU - Journalism

Lecture Lab Credit

JOU 110 Introduction to Journalism 3 0 3

Prerequisites: ENG 111 or consent of Division Director
Corequisites: None

This course presents a study of journalistic news, feature, and sports writing. Emphasis is placed on basic news writing techniques and on related legal and ethical issues. Upon completion, students should be able to gather, write, and edit news, feature, and sports articles. *Note: This course is a Writing Intensive Elective for UNCC.*

LEX - Legal Education

Lecture Lab Credit

LEX 110 Introduction to Paralegal Study 2 0 2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None

This course introduces the paralegal profession and the legal system. Topics include regulations and concepts, ethics, case analysis, legal reasoning, career opportunities, certification, professional organizations, and other related topics. Upon completion, students should be able to explain the role of the paralegal and identify the skills, knowledge, and ethics required of legal assistants.

LEX 120 Legal Research/Writing I 2 2 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 121 Legal Research/Writing II 2 2 3

Prerequisites: LEX 120; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None

This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 130 Civil Injuries 3 0 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

LEX 140 Civil Litigation I 3 0 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces the structure of the legal system and the rules governing civil litigation. Emphasis is placed on jurisdiction and the state and federal rules of civil procedure and rules of evidence. Upon completion, students should be able to assist an attorney in the preparation of a civil case.

LEX 141 Civil Litigation II 2 2 3

Prerequisites: LEX 120 and LEX 140; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers the paralegal's role in the civil litigation process. Topics include investigation, interviewing, pleadings, motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing, directing, and organizing documents for civil litigation.

LEX 150 Commercial Law 2 2 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

LEX 160 Criminal Law & Procedure 2 2 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

LEX 170 Administrative Law 2 0 2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, workers' compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.

LEX 192 Selected Topics in Paralegal 2 0 2

Prerequisites: Enrollment in the program; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

LEX 210 Real Property I 3 0 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

LEX 211 Real Property II 1 4 3

Prerequisites: LEX 210; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

LEX 220 Corporate Law 2 0 2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and

partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

LEX 240 Family Law 3 0 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

LEX 250 Wills, Estates, & Trusts 2 2 3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

LEX 260 Bankruptcy & Collections 2 0 2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

LEX 280 Ethics & Professionalism 2 0 2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the role of a professional paralegal and identify authority that can properly be delegated by an attorney.

LEX 285 Workers' Comp Law 2 0 2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers the process of initiating and handling workers' compensation claims. Emphasis is placed on reviewing and drafting relevant Industrial Commission forms. Upon completion, students should be able to interview clients, gather information, and draft documents related to workers' compensation claims.

MAC - Machining

Lecture Lab Credit

MAC 111 Machining Technology I 2 12 6

Prerequisites:

Corequisites: None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 111X Machining Technology I 1 6 3

Prerequisites:

Corequisites: None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. *This is the first part of a course sequence and emphasizes engine lathe set-up and operation.*

MAC 111Y Machining Technology I 1 6 3

Prerequisites:

Corequisites: None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. *This is the second part of a course sequence and emphasizes milling machine set-up and operation.*

MAC 112 Machining Technology II 2 12 6

Prerequisites: MAC 114, MAC 111X, MAC 111Y

Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 112X Machining Technology II 1 6 3

Prerequisites: MAC 114

Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on

precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling. *This is the first part of a course sequence, and emphasizes layout and hand tool procedures.*

MAC 112Y Machining Technology II 1 6 3

Prerequisites: MAC 114, MAC 111X, MAC 111Y
Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling. *This is the second part of a course sequence, and emphasizes grinding procedures.*

MAC 113 Machining Technology III 2 12 6

Prerequisites: MAC 112Y, MAC 111X, MAC 111Y
Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

MAC 113X Machining Technology III 1 6 3

Prerequisites: MAC 111X, MAC 111Y, MAC 112Y
Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications. *This course emphasizes project building.*

MAC 113Y Machining Technology III 1 6 3

Prerequisites: MAC 111X, MAC 111Y, MAC 112Y
Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications. *This course emphasizes project building.*

MAC 114 Introduction to Metrology 2 0 2

Prerequisites:
Corequisites: MAC111X or MAC 111Y

This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

MAC 121 Introduction to Computer Numerical Control 2 0 2

Prerequisites:
Corequisites: None

This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

MAC 122 Computer Numerical Control Turning 1 3 2

Prerequisites:
Corequisites: None

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124 Computer Numerical Control Milling 1 3 2

Prerequisites:
Corequisites: None

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

MAC 131 Blueprint Reading / Machine I 1 2 2

Prerequisites:
Corequisites: None

This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

MAC 132 Blueprint Reading / Machine II 1 2 2

Prerequisites: MAC 131
Corequisites: None

This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

MAC 151 Machining Calculations 1 2 2

Prerequisites:
Corequisites: None

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

MAC 152 Advanced Machining Calculations 1 2 2

Prerequisites: MAC 151
Corequisites: None

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

MAC 222 Advanced Computer Numerical Control Turning 1 3 2

Prerequisites: MAC 121
Corequisites: None

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

MAC 224 Advanced Computer Numerical Control Milling 1 3 2

Prerequisites: MAC 121
Corequisites: None

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

MAC 231 Computer Numerical Control Graphics Programming: Turning 1 4 3

Prerequisites: MAC 222
Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, include machine selection, tool selection. operational sequence, speed, feed, and cutting depth. Transfer machine code from CAM Graphics to the CNC turning center.

MAC 232 Computer Numerical Control Graphics Programming: Milling 1 4 3

Prerequisites: MAC 224
Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.

MNT - Maintenance

	Lecture	Lab	Credit

MNT 110 Intro to Maintenance Procedures 1 3 2

Prerequisites:
Corequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 111 Maintenance Practices 1 3 2

Prerequisites:MNT 110
Corequisites: None

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

MNT 150 Basic Building Maintenance 1 3 2

Prerequisites:
Corequisites: None

This course introduces the basic skills of building maintenance. Topics include basic carpentry and masonry skills including forming, framing, laying block to a line, repairing, and other related topics. Upon completion, students should be able to perform basic carpentry and masonry skills in a maintenance setting.

MNT 220 Rigging & Moving 1 3 2

Prerequisites:
Corequisites: None

This course covers the principles of safe rigging practices for handling, placing, and moving heavy machinery and equipment. Topics include safety estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to relocate and set up equipment safely using accepted rigging practices.

MNT 230 Pumps & Pumping Systems 1 3 2

Prerequisites:
Corequisites: None

This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

MNT 240 Industrial Equipment Troubleshoot 1 3 2

Prerequisites:ELC 112 or ELS 131
Corequisites: None

This course covers the various service procedures, tools, instruments, and equipment necessary to analyze and repair typical industrial equipment. Emphasis is placed on electromechanical and fluid power equipment troubleshooting and repair, including common techniques and procedures. Upon completion, students should be able to troubleshoot and repair industrial equipment.

MKT - Marketing and Retailing

	Lecture	Lab	Credit

MKT 120 Principles of Marketing 3 0 3

Prerequisites:
Corequisites: None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

MKT 121 Retailing 3 0 3

Prerequisites:
Corequisites: None

This course examines the role of retailing in the economy. Topics include the development of present retail structure, functions performed, effective operations, and managerial problems resulting from current economic and social trends. Upon completion, students should be able to demonstrate an understanding of the basic principles of retailing.

MKT 122 Visual Merchandising 3 0 3

Prerequisites:
Corequisites: None

This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate designs and displays. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

MKT 123 Fundamentals of Selling 3 0 3

Prerequisites:
Corequisites: None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

MKT 220 Advertising and Sales Promotion 3 0 3

Prerequisites:
Corequisites: None

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

MKT 221 Consumer Behavior 3 0 3

Prerequisites:
Corequisites: None

This course is designed to describe consumer behavior as applied to the exchange processes involved in acquiring, consuming, and disposing of goods and services. Topics include an analysis of basic and environmental determinants of consumer behavior with emphasis on the decision-making process. Upon completion, students should be able to analyze concepts related to the study of the individual consumer.

MKT 223 Customer Service 3 0 3

Prerequisites:
Corequisites: None

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

MKT 224 International Marketing 3 0 3

Prerequisites:
Corequisites: None

This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

MKT 225 Marketing Research 3 0 3

Prerequisites: MKT 120
Corequisites: None

This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

MKT 227 Marketing Applications 3 0 3

Prerequisites: MKT 120
Corequisites: None

This course extends the study of diverse marketing strategies. Emphasis is placed on case studies and small-group projects involving research or planning. Upon completion, students should be able to effectively participate in the formulation of a marketing strategy. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

MKT 228 Service Marketing 3 0 3

Prerequisites: None
Corequisites: None

This course is designed to define service marketing, demonstrate its importance, and note its special characteristics. Topics include basic building blocks of service marketing, distinctive aspects of services, and applications of service marketing mix. Upon completion, students should be able to demonstrate a basic understanding of the marketing mix as it applies to the service industry.

MKT 230 Public Relations 3 0 3

Prerequisites:
Corequisites: None

This course introduces public relations as it affects communications, strategic planning, and management of the organization. Topics include basic principles and functions of management that guide public relations activities as applied to businesses, services, institutions, and associations. Upon completion, students should be able to perform the communications, evaluation, planning, and research activities of the public relations professional.

MAT - Mathematics

Initial student placement in Mathematics courses is based on the college's placement testing policies and procedures.

	Lecture	Lab	Credit
MAT 101 Applied Mathematics I	2	2	3

Prerequisites: MAT 060, or placement test score, or permission of the Division Director
Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study. This course is intended for certificate and diploma programs.

MAT 115 Mathematical Models 2 2 3

Prerequisites: MAT 060, or MAT 070, or placement test score, or permission of the Division Director.
Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to per-

cent, ratio and proportion, formulas, statistics, functional notation, linear functions and their groups, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently. This course is intended for AAS degree programs.

Not included in the AA, AFA, or AS General Education Core

MAT 121 Algebra/Trigonometry I 2 2 3

Prerequisites: MAT 080, or MAT 090, or MAT 140, or MAT 161, or placement test score, or permission of the Division Director

Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic, radical, exponential, and logarithmic functions; descriptive statistics; right triangle trigonometry; and the use of technology. Upon completion, students should be able to solve problems and analyze and communicate results. *This course is intended for AAS degree programs.*

MAT 122 Algebra/Trigonometry II 2 2 3

Prerequisites: MAT 121, or MAT 171, or permission of the Division Director

Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, trigonometry, and systems of equations. Topics include translation and scaling of functions, sine law, cosine law, complex numbers, vectors, statistics, and systems of equations. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results. *This course is intended for AAS degree programs.*

MAT 140 Survey of Mathematics 3 0 3

Prerequisites: MAT 170, or MAT 080, or MAT 090, or placement test score, or permission of the Division Director

Corequisites: None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AA, AFA, and AGE degree programs.*

MAT 155 Statistical Analysis 3 0 3

Prerequisites: MAT 122, MAT 140, or MAT 161, or MAT 171, or MAT 172, or MAT 175, or permission of the Division Director

Corequisites: MAT 155A

This course is an introduction to descriptive and inferential statistics. Topics include sampling, distributions, plotting data, central tendency, dispersion, Central Limits Theorem, confidence intervals, hypothesis testing, correlations, regressions, and multinomial experiments. Upon completion, students should be able to describe data and test inferences about populations using sample data. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for all associate degree programs.*

MAT 155A Statistical Analysis Lab 0 2 1

Corequisites: MAT 155

This course is a laboratory for MAT 155. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 161 College Algebra 3 0 3

Prerequisites: MAT 080, or MAT 090, or placement test score, or permission of the Division Director

Corequisites: None

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AA, AFA, and AGE degree programs.*

MAT 167 Discrete Mathematics 3 0 3

Prerequisites: MAT 161, or MAT 171, or MAT 175, or permission of the Division Director

Corequisites: None

This course is a study of discrete mathematics with emphasis on applications. Topics include number systems, combinations/permutations, mathematical logic/proofs, sets/counting, Boolean algebra, mathematical induction, trees/graphs, and algorithms. *This course is intended for AAS degree programs. This course has been approved for transfer through the Comprehensive Articulation Agreement.*

MAT 171 Precalculus Algebra 3 0 3

Prerequisites: MAT 080, or MAT 090, or MAT 161, or placement test score, or permission of the Division Director

Corequisites: None

This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations will include exponential and logarithmic functions. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. T*his course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 172 Precalculus Trigonometry 3 0 3

Prerequisites: MAT 171, or permission of the Division Director

Corequisites: None

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and an introduction to calculus. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This*

course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.

MAT 175 Precalculus 4 0 4

Prerequisites: MAT 080 (minimum grade of "A"), or MAT 161 (minimum grade of "B"), or placement test score, or permission of the Division Director

Corequisites: None

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 223 Applied Calculus 2 2 3

Prerequisites: MAT 122, or MAT 172, or MAT 175, or permission of the Division Director.

Corequisites: None

This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results. *This course is intended for AAS degree programs.*

MAT 263 Brief Calculus 3 0 3

Prerequisites: MAT 161, or MAT 171, or MAT 175, or permission of the Division Director

Corequisites: MAT 263A

This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AA, AFA, and AGE degree programs.*

MAT 263A Brief Calculus Lab 0 2 1

Corequisites: MAT 263

This course is a laboratory for MAT 263. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

MAT 271 Calculus I 3 2 4

Prerequisites: MAT 172, or MAT 175, or permission of the Division Director

Corequisites: None

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 272 Calculus II 3 2 4

Prerequisites: MAT 271, or permission of the Division Director

Corequisites: None

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 273 Calculus III 3 2 4

Prerequisites: MAT 272, or permission of the Division Director

Corequisites: None

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 280 Linear Algebra 3 0 3

Prerequisites: MAT 271, or permission of the Division Director

Corequisites: None

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems.

MAT 285 Differential Equations 3 0 3

Prerequisites: MAT 272, or MAT 273, or permission of the Division Director

Corequisites: None

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear, higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the

solutions to analyze the phenomena. *This course is intended for AS degree programs.*

MAT - Advancement Studies (MAT 050-080)

See Pre-College section of this catalog.

MEC - Mechanical Engineering Technology

See also ATR-Automation, DDF-Design Drafting, DFT-Drafting, ISC-Industrial Science, and PLA-Plastics for other courses.

	Lecture	Lab	Credit
MEC 111X Machine Processes 1 (Conventional)	1	2	1.7

Prerequisites:
Corequisites: None
This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance. *This is the first part of a course sequence and emphasizes conventional machine tool work.*

MEC 111Y Machine Processes 1 (CNC) 1 2 1.3
Prerequisites:MEC 111X
Corequisites: None
This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic set-up and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance. *This is the second part of a course sequence and emphasizes CNC programming and production.*

MEC 112 Mechanical Processes II 2 3 3
Prerequisites:MEC 111
Corequisites: None
This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

MEC 128 CNC Machining Processes 2 4 4
Prerequisites:MAC 121
Corequisites: None
This course covers programming, setup, and operations of CNC turning, milling, and other CNC machines. Topics include programming formats, control functions, program editing, and part production and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning and milling centers.

MEC 161 Manufacturing Processes I 3 0 3
Prerequisites:
Corequisites: None
This course provides the fundamental principles of processing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added processing provided to the customer by the manufacturers. Upon completion, students should be able to apply principles of traditional and non-traditional processing for metals and non-metals.

MEC 172 Introduction to Metallurgy 2 2 3
Prerequisites:
Corequisites: None
This course covers the production, properties, testing, classification, microstructure, and heat treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

MEC 180 Engineering Materials 2 3 3
Prerequisites:ENG 114
Corequisites: None
This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.

MEC 251 Statics 2 2 3
Prerequisites: PHY 131 or PHY 151
Corequisites: None
This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.

MEC 252 Strength of Materials 2 2 3
Prerequisites: MEC 251
Corequisites: None
This course covers the principles and concepts of stess analysis. Topics includes centroids, moments of inertia, shear/moment diagrams, and stress and strain. Upon completion, students should be able to perform a stress and strain analysis on structural components.

MEC 265 Fluid Mechanics 2 2 3
Prerequisites: PHY 131, PHY 151, or PHY 110
Corequisites: None
This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.

MEC 267 Thermal Systems 2 2 3
Prerequisites: PHY 131 or PHY 151
Corequisites: None
This course introduces the fundamental laws of thermodynamics. Topics include work and energy, open and closed systems, and heat engines. Upon completion, students should be able to demonstrate a knowledge of the laws and principles that apply to thermal power.

MEC 270 Machine Design 3 3 4

Prerequisites: DFT 151, MEC 180, and MEC 252
Corequisites: None

This course covers the basic principles underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles.

MEC 275 Engineering Mechanisms 2 2 3

Prerequisites: DFT 151 and PHY 131 or PHY 151
Corequisites: None

This course covers plane motion and devices used to generate plane motion. Topics include analysis of displacement, velocity, acceleration, gears, cams and other mechanical systems. Upon completion, students should be able to graphically and mathematically analyze a plane motion system.

MEC 292 Selected Topics in Mechanical Engineering Technology 1 2 2

Prerequisites: None
Corequisites: None

This course covers provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding on the specific area of study.

MEC 293 Selected Topics in Mechanical Engineering Technology 2 2 3

Prerequisites: None
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MED - Medical Assisting

	Lecture	Lab	Clinic	Credit
MED 110 Orientation to Medical Assisting	1	0	0	1

Prerequisites: None
Corequisites: None

This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

MED 112 Orientation to Clinic Setting I 0 0 3 1

Prerequisites: Enrollment in the Medical Assisting program
Corequisites: None

This course provides an early opportunity to observe the medical setting. Emphasis is placed on medical assisting procedures including appointment scheduling, filing, greeting patients, telephone techniques, billing, collections, medical records, and related medical procedures. Upon completion, students should be able to identify administrative and clinical procedures in the medical environment.

MED 114 Professional Interaction in Health Care 1 0 0 1

Prerequisites: Division Approval
Corequisites: None

This course is designed to identify various patient behaviors encountered in the medical setting. Emphasis is placed on stressors related to illness, cultural influences, death and dying, and needs specific to patients. Upon completion, students should be able to utilize appropriate methods of verbal and nonverbal communication with empathy and impartiality.

MED 116 Introduction to A & P 3 2 0 4

Prerequisites: Division Approval
Corequisites: None

This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care.

MED 118 Medical Law and Ethics 2 0 0 2

Prerequisites: Division Approval
Corequisites: None

This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

MED 120 Survey of Medical Terminology 2 0 0 2

Prerequisites: None
Corequisites: None

This course introduces the vocabulary abbreviations and symbols used in the language of medicine. Emphasis is placed on building medical terms using perfixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell and define accepted medical terms.

MED 121 Medical Terminology I 3 0 0 3

Prerequisites: None
Corequisites: None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 122 Medical Terminology II 3 0 0 3

Prerequisites: MED 121
Corequisites: None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should

be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 130 Administrative Office Procedures I 1 2 0 2

Prerequisites: Enrollment in the Medical Assisting program, keyboarding/computer skills
Corequisites: None
This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

MED 131 Administrative Office Procedures II 1 2 0 2

Prerequisites: keyboarding/computer skills
Corequisites: MAT 115, MED 121
This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

MED 134 Medical Transcription 2 2 0 3

Prerequisites: MED 116, MED 121, or BIO 163 or BIO 168/169, keyboarding/computer skills
Corequisites: None
This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription.

MED 138 Infection/Hazard Control 2 0 0 2

Prerequisites: None
Corequisites: None
This course introduces the student to infection and hazard control procedures necessary for the healthcare worker. Topics include introduction to microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws. *(State ID Course Approval Number: Medical 96-M-94-1010)*

MED 140 Exam Room Procedures I 3 4 0 5

Prerequisites: Completion of first semester courses in the Medical Assisting program
Corequisites: MED 150
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

MED 150 Laboratory Procedures I 3 4 0 5

Prerequisites: Completion of first semester courses in the Medical Assisting program
Corequisites: MED 140
This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

MED 232 Medical Insurance Coding 1 3 0 2

Prerequisites: None
Corequisites: None
This course is designed to build upon the coding skills introduced in MED 131. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.

MED 260 Medical Clinical Externship 0 0 15 5

Prerequisites: Completion of first and second semester courses in the Medical Assisting program
Corequisites: MED 262 and MED 276
This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

MED 262 Clinical Perspectives 1 0 0 1

Prerequisites: Completion of first and second semester courses in the Medical Assisting program
Corequisites: MED 260 and MED 276
This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility.

MED 270 Symptomatology 2 2 0 3

Prerequisites: Completion of the Medical Assisting Diploma program or Division Approval
Corequisites: None
This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

MED 272 Drug Therapy 3 0 0 3

Prerequisites: Completion of the Medical Assisting Diploma program or Division approval
Corequisites: None
This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper

documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

MED 274 Diet Therapy / Nutrition 3 0 0 3

Prerequisites: Completion of second semester courses in the Medical Assisting program or Division approval
Corequisites: None
This course introduces the basic principles of nutrition as they relate to health and disease. Topics include basic nutrients, physiology, dietary deficiencies, weight management, and therapeutic nutrition in wellness and disease. Upon completion, students should be able to interpret clinical and dietary data and provide patient counseling and education.

MED 276 Patient Education 1 2 0 2

Prerequisites: Completion of first and second semester courses in the Medical Assisting program
Corequisites: MED 260 and MED 262
This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

MLT - Medical Laboratory Technology

		Lecture	Lab	Clinic	Credit
MLT 110	**Introduction to Medical Laboratory Technology**	2	3	0	3

Prerequisites:
Corequisites: None
This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics, basic laboratory techniques, safety, quality assurance, and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.

MLT 111 Urinalysis and Body Fluids 1 3 0 2

Prerequisites:
Corequisites: None
This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.

MLT 120 Hematology / Hemostasis I 3 3 0 4

Prerequisites:
Corequisites: None
This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis, and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques, and correlate laboratory findings with disorders.

MLT 125 Immunohematology I 4 3 0 5

Prerequisites:
Corequisites: None
This course introduces the immune system and response; basic concepts of antigens, antibodies, and their reactions; and applications in transfusion medicine and serodiagnostic testing. Emphasis is placed on immunological and blood banking techniques including concepts of cellular and humoral immunity and pretransfusion testing. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting routine immunological and blood bank procedures.

MLT 130 Clinical Chemistry I 3 3 0 4

Prerequisites:
Corequisites: None
This course introduces the quantitative analysis of blood and body fluids and their variations in health and disease. Topics include clinical biochemistry, methodologies, instrumentation, and quality control. Upon completion, students should be able to demonstrate theoretical comprehension of clinical chemistry, perform diagnostic techniques, and correlate laboratory findings with disorders.

MLT 140 Introduction to Microbiology 2 3 0 3

Prerequisites:
Corequisites: None
This course introduces basic techniques and safety procedures in clinical microbiology. Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques, and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures.

MLT 216 Professional Issues 0 2 0 1

Prerequisites:
Corequisites: None
This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.

MLT 220 Hematology / Hemostasis II 2 3 0 3

Prerequisites: MLT 120
Corequisites: None
This course covers the theories and techniques used in the advanced analysis of human blood cells and hemostasis. Emphasis is placed on the study of hematologic disorders, abnormal cell development and morphology, and related testing. Upon completion, students should be able to demonstrate a theoretical comprehension and application of abnormal hematology and normal and abnormal hemostasis.

MLT 230 Clinical Chemistry II 2 3 0 3

Prerequisites: MLT 130
Corequisites: None
This course is designed to supplement the biochemical and physiologic theory presented in MLT 130. Emphasis is placed on special chemistry techniques and methodologies. Upon completion, students should be able to recognize and differentiate technical and physiological causes of unexpected test results.

MLT 240 Special Clinical Microbiology 2 3 0 3

Prerequisites: MLT 140
Corequisites: None
This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures.

MLT 251 Medical Laboratory Technology Practicum I 0 0 3 1

Prerequisites:
Corequisites: None
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT 267 Medical Laboratory Technology Practicum II 0 0 24 8

Prerequisites:
Corequisites: None
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT 277 Medical Laboratory Technology Practicum III 0 0 24 8

Prerequisites:
Corequisites: None
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

Microcomputer Specialist

(See CIS/CSC Computer Information Systems)

MUS - Music

	Lecture	Lab	Credit

MUS 110 Music Appreciation 3 0 3

Prerequisites:
Corequisites: None
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

MUS 111 Fundamentals of Music 3 0 3

Prerequisites:
Corequisites: None
This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music.

MUS 112 Introduction to Jazz 3 0 3

Prerequisites:
Corequisites: None
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

MUS 121 Music Theory I 3 2 4

Prerequisites: MUS 111 or permission
Corequisites: None
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 122 Music Theory II 3 2 4

Prerequisites: MUS 121
Corequisites: None
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 123 Music Composition 0 2 1

Prerequisites: MUS 111 or MUS 121
Corequisites: None
This course provides a study of elementary forms and traditional approaches to the organization of melody, harmony, rhythm, etc. in musical composition. Emphasis is placed on using musical notation to create new musical works. Upon completion, students should be able to create short musical works using appropriate musical notation.

MUS 131 Chorus I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 132 Chorus II 0 2 1

Prerequisites: MUS 131
Corequisites: None
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 133 Band I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 134 Band II 0 2 1

Prerequisites: MUS 133
Corequisites: None
This course is a continuation of MUS 133. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 135 Jazz Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course provides the opportunity for development of jazz improvisational skills using chords related to 12-bar blues and simple songs using II-V-I progressions.

MUS 136 Jazz Ensemble II 0 2 1

Prerequisites: MUS 135
Corequisites: None
This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course provides opportunities for learning to improvise over chord changes inherent in each jazz style studied.

MUS 137 Orchestra I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity for those who play an orchestral instrument to gain experience playing in an ensemble. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 138 Orchestra II 0 2 1

Prerequisites: MUS 137
Corequisites: None
This course is a continuation of MUS 137. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 141 Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 141D Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141D is Appalachian Dulcimer Ensemble I.

MUS 141E Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141E is Early Music Consort I.

MUS 141F Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141F is Folk Music "Jam" I.

MUS 141G Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141G is Guitar Ensemble I.

MUS 141H Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141H is Folk Harp Ensemble I.

MUS 141P Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141P is Piano Ensemble I.

MUS 141R Ensemble I 0 2 1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141R is Recorder Ensemble I.

MUS 142 Ensemble II 0 2 1

Prerequisites: MUS 141
Corequisites: None
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 142D Ensemble II 0 2 1

Prerequisites: MUS 141D
Corequisites: None
This course is a continuation of MUS 141D. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142D is Appalachian Dulcimer Ensemble II.

MUS 142E Ensemble II 0 2 1

Prerequisites: MUS 141E
Corequisites: None
This course is a continuation of MUS 141E. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142E is Early Music Consort II.

MUS 142F Ensemble II 0 2 1

Prerequisites: MUS 141F
Corequisites: None
This course is a continuation of MUS 141F. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142F is Folk Music "Jam" II.

MUS 142G Ensemble II 0 2 1

Prerequisites: MUS 141G
Corequisites: None
This course is a continuation of MUS 141G. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142G is Guitar Ensemble II.

MUS 142H Ensemble II 0 2 1

Prerequisites: MUS 141H
Corequisites: None
This course is a continuation of MUS 141H. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142H is Folk Harp Ensemble II.

MUS 142P Ensemble II 0 2 1

Prerequisites: MUS 141P
Corequisites: None
This course is a continuation of MUS 141P. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142P is Piano Ensemble II.

MUS 142R Ensemble II 0 2 1

Prerequisites: MUS 141R
Corequisites: None
This course is a continuation of MUS 141R. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142R is Recorder Ensemble II.

MUS 151B Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151B is Banjo.

MUS 151D Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151D is Appalachian Dulcimer.

MUS 151F Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151F is Fiddle-Blue Grass and Old-Time.

MUS 151G Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151G is Beginning Guitar in which focus is on reading guitar music in first position, playing chords in first position, and transposition to selected keys.

MUS 151H Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151H is Folk Harp.

MUS 151J Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151J is Jazz Vocal which will include singing solos as well as scat singing and modern 4-part harmony.

MUS 151P Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151P is Beginning Piano in which students learn music reading skills required for simple two-hand piano compositions in the keys of C and G major.

MUS 151R Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151R is Beginning Recorder in which students will learn basic fingerings on the soprano or alto recorder.

MUS 151S Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151S is Sight singing which is designed to acquaint beginning students with the principles of solfége and pitch organization, rhythmic patterns, and basic harmonic progression.

MUS 151V Class Music I 0 2 1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151V is Class Voice I for beginning singers and will focus on correct posture, breathing, support for the resonation of vowels, and proper diction.

MUS 152D Class Music II 0 2 1

Prerequisites: MUS 151D or Division Consent
Corequisites: None
This course is a continuation of MUS 151D Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152D is level II of Appalachian Dulcimer.

MUS 152G Class Music II 0 2 1

Prerequisites: MUS 151G
Corequisites: None
This course is a continuation of MUS 151G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152G is Intermediate Guitar in which skills emphasized include improving ability to read a single line on the guitar, reading block and arpeggiated chords, and playing both a melody and arpeggiated accompaniment.

MUS 152H Class Music II 0 2 1

Prerequisites: MUS 151H or Division Consent
Corequisites: None
This course is a continuation of MUS 151H. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152H is level II of Folk Harp.

MUS 152J Class Music II 0 2 1

Prerequisites: MUS 151G
Corequisites: None

This course is a continuation of MUS 151G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152J is Jazz Guitar which includes harmonization of tunes using standard jazz chords and explores chord/scale relationships through use of chord shapes.

MUS 152P Class Music II 0 2 1

Prerequisites: MUS 151P or Division Consent
Corequisites: None

This course is a continuation of MUS 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152P is level II of Beginning Piano in which piano compositions, scales, and chords studied will include the keys of C, G, and F major, and A and D minor.

MUS 152S Class Music II 0 2 1

Prerequisites: MUS 151P or Division Consent
Corequisites: None

This course is a continuation of MUS 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152S is sightreading at the piano and is designed to complement MUS 152P as well as upper levels of piano.

MUS 152V Class Music II 0 2 1

Prerequisites: MUS 151V
Corequisites: None

This course is a continuation of MUS 151V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152V is Class Voice II in which study of the International Phonetic alphabet will facilitate the performance of repertoire which will include art songs, arias, and other songs.

MUS 161B-W Applied Music I 1 2 2

Prerequisites: Audition
Corequisites: None

MUS 162B-W Applied Music II 1 2 2

Prerequisites: MUS 161B-W
Corequisites: None

MUS 261B-W Applied Music III 1 2 2

Prerequisites: MUS 162B-W
Corequisites: None

MUS 262B-W Applied Music IV 1 2 2

Prerequisites: MUS 261B-W
Corequisites: None

These courses provide individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. The specific instrument is designated by a letter as given below.

B	Clarinet	M	Timpani
C	Flute	N	Saxophone
D	Viola	O	String Bass
E	French horn	P	Piano
F	Harp	Q	Trombone
G	Guitar	R	Trumpet
H	Harpsichord	S	Tuba
J	Cello	V	Voice
K	Organ	W	Violin
L	Percussion		

MUS 170 Business of Music 3 0 3

Prerequisites:
Corequisites: None

This course introduces the basic elements of the music business. Topics include copyright law, musical arrangements and abridgments, recording and songwriting contracts, agents and managers, performing rights organizations, and the musician's union. Upon completion, students should be able to demonstrate an understanding of the basic elements of the music business.

MUS 175 Recording Techniques I 2 0 2

Prerequisites:
Corequisites: None

This course introduces the recording studio from an artistic and operational point of view. Emphasis is placed on audio consoles, microphones, multi-track recorders, and echo chambers. Upon completion, students should be able to demonstrate understanding of operation and function of recording equipment and its relationship to musician, sound engineer, and producer.

MUS 176 Recording Techniques II 0 4 2

Prerequisites: MUS 175
Corequisites: None

This course continues the study and application of recording techniques begun in MUS 175. Emphasis is placed on multitrack recording and mix-down, microphone placement, and patch bay function. Upon completion, students should be able to create projects demonstrating proficiency in the skills and use of the equipment studied.

MUS 191 Selected Topics in Music 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 192 Selected Topics in Music 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate

an understanding of the specific area of study.

MUS 193 Selected Topics in Music 1-3 0-6 3
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 196 Seminar in Music 0-1 0-3 1
Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 197 Seminar in Music 0-2 0-6 2
Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 198 Seminar in Music 1-3 0-6 3
Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 210 History of Rock Music 3 0 3
Prerequisites: MUS 110
Corequisites: None
This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.

MUS 213 Opera and Musical Theatre 3 0 3
Prerequisites:
Corequisites: None
This course covers the origins and development of opera and musical theatre from the works of Claudio Monteverdi to the present. Emphasis is placed on how the structure and components of opera and musicals effect dramaturgy through listening examples and analysis. Upon completion, students should be able to demonstrate analytical and listening skills in understanding both opera and the musical. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

MUS 214 Electronic Music I 1 2 2
Prerequisites: MUS 111
Corequisites: None
This course provides an opportunity to study and explore various electronic instruments and devices. Emphasis is placed on fundamental MIDI applications and implementation, features and application of sequences, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.

MUS 215 Electronic Music II 1 2 2
Prerequisites: MUS 214
Corequisites: None
This course is a continuation of MUS 214. Emphasis is placed on advanced MIDI applications and implementation and continued work with sequencers, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.

MUS 217 Elementary Conducting 1 2 2
Prerequisites: MUS 111
Corequisites: None
This course introduces the basic patterns and skills for conducting instrumental and vocal groups. Emphasis is placed on conducting beat patterns, expressive gestures, fermatas, accents, tempos, and rehearsal techniques. Upon completion, students should be able to demonstrate the above skills by conducting vocal and/or instrumental groups.

MUS 221 Music Theory III 3 2 4
Prerequisites: MUS 122
Corequisites: None
This course is a continuation of MUS 122. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 222 Music Theory IV 3 2 4
Prerequisites: MUS 221
Corequisites: None
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 231 Chorus III 0 2 1
Prerequisites: MUS 132
Corequisites: None
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 232 Chorus IV 0 2 1
Prerequisites: MUS 231
Corequisites: None
This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 233 Band III 0 2 1

Prerequisites: MUS 134
Corequisites: None

This course is a continuation of MUS 134. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 234 Band IV 0 2 1

Prerequisites: MUS 233
Corequisites: None

This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 235 Jazz Ensemble III 0 2 1

Prerequisites: MUS 136
Corequisites: None

This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed in ensemble playing leading to performance.

MUS 236 Jazz Ensemble IV 0 2 1

Prerequisites: MUS 235
Corequisites: None

This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 237 Orchestra III 0 2 1

Prerequisites: MUS 138
Corequisites: None

This course is a continuation of MUS 138. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 238 Orchestra IV 0 2 1

Prerequisites: MUS 237
Corequisites: None

This course is a continuation of MUS 237. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 241 Ensemble III 0 2 1

Prerequisites: MUS 142
Corequisites: None

This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 241D Ensemble III 0 2 1

Prerequisites: MUS 142D
Corequisites: None

This course is a continuation of MUS 142D. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241D is Appalachian Dulcimer Ensemble III.

MUS 241E Ensemble III 0 2 1

Prerequisites: MUS 142E
Corequisites: None

This course is a continuation of MUS 142E. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241E is Early Music Consort III.

MUS 241F Ensemble III 0 2 1

Prerequisites: MUS 142F
Corequisites: None

This course is a continuation of MUS 142F. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241F is Folk Music "Jam" III.

MUS 241G Ensemble III 0 2 1

Prerequisites: MUS 142G
Corequisites: None

This course is a continuation of MUS 142G. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241G is Guitar Ensemble III.

MUS 241H Ensemble III 0 2 1

Prerequisites: MUS 142H
Corequisites: None

This course is a continuation of MUS 142H. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241H is Folk Harp Ensemble III.

MUS 241P Ensemble III 0 2 1

Prerequisites: MUS 142P
Corequisites: None

This course is a continuation of MUS 142P. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241P is Piano Ensemble III.

MUS 241R Ensemble III 0 2 1

Prerequisites: MUS 142R
Corequisites: None

This course is a continuation of MUS 142R. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills need-

ed to participate in ensemble playing leading to performance. MUS 241R is Recorder Ensemble III.

MUS 242 Ensemble IV 0 2 1

Prerequisites: MUS 241
Corequisites: None
This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 242D Ensemble IV 0 2 1

Prerequisites: MUS 241D
Corequisites: None
This course is a continuation of MUS 241D. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242D is Appalachian Dulcimer Ensemble IV.

MUS 242E Ensemble IV 0 2 1

Prerequisites: MUS 241E
Corequisites: None
This course is a continuation of MUS 241E. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242E is Early Music Consort IV.

MUS 242F Ensemble IV 0 2 1

Prerequisites: MUS 241F
Corequisites: None
This course is a continuation of MUS 241F. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242F is Folk Music "Jam" IV.

MUS 242G Ensemble IV 0 2 1

Prerequisites: MUS 241G
Corequisites: None
This course is a continuation of MUS 241G. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242G is Guitar Ensemble IV.

MUS 242H Ensemble IV 0 2 1

Prerequisites: MUS 241H
Corequisites: None
This course is a continuation of MUS 241H. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242H is Folk Harp Ensemble IV.

MUS 242P Ensemble IV 0 2 1

Prerequisites: MUS 241P
Corequisites: None
This course is a continuation of MUS 241P. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242P is Piano Ensemble IV.

MUS 242R Ensemble IV 0 2 1

Prerequisites: MUS 241R
Corequisites: None
This course is a continuation of MUS 241R. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242R is Recorder Ensemble IV.

MUS 251C Class Music III 0 2 1

Prerequisites: MUS 152P
Corequisites: None
This course is a continuation of MUS 152P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 251C is a course on Chords on the keyboard which provides students with ability to use chord symbols and to reharmonize simple tunes and reduce them to lead sheets.

MUS 251P Class Music III 0 2 1

Prerequisites: MUS 152P or Division Consent
Corequisites: None
This course is a continuation of MUS 152P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 251P is the third semester (intermediate level) of Class Piano in an electronic piano laboratory setting.

MUS 252J Class Music IV 0 2 1

Prerequisites: MUS 251C
Corequisites: None
This course is a continuation of MUS 251C. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 252J is Jazz Piano, an advanced sequel to MUS 251C (Chords), which explores the application of both simple and complex chord forms in reharmonizing standard popular tunes.

MUS 252P Class Music IV 0 2 1

Prerequisites: MUS 251P or Division Consent
Corequisites: None
This course is a continuation of MUS 251P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 252P is the fourth semester of Class Piano in an electronic piano laboratory setting.

MUS 253 Big Band 0 2 1

Prerequisites:
Corequisites: None
This course includes the Big Band instrumentation of five saxes, four trumpets, four trombones, and four-piece rhythm section (bass, piano, drums, and guitar). Emphasis is placed on learning the repertoire specifically written for Big Band instrumentation. Upon completion, students should be able to demon-

strate skills needed to participate in performance of Big Band music.

MUS 265 Piano Pedagogy 0 2 1

Prerequisites:
Corequisites: None

This course introduces the basic methods and materials of piano instruction. Emphasis is placed on basic teaching techniques and piano literature appropriate for various skill levels. Upon completion, students should be able to identify and utilize appropriate teaching methods and materials for various levels of piano instruction.

MUS 271 Music History I 3 0 3

Prerequisites: MUS 122 or Division Consent
Corequisites: None

This course is the first of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from Antiquity through the Baroque Period. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.

MUS 272 Music History II 3 0 3

Prerequisites: MUS 271
Corequisites: None

This course is the second of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from the Classical Period to the present. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.

MUS 280 Music for the Elementary Classroom 3 0 3

Prerequisites: MUS 110 or Division Consent
Corequisites: None

This course covers the skills necessary for teaching music in the elementary school. Emphasis is placed on integrating music activities which are suitable for all ages of elementary students, including theory, performance, and conducting, into classroom activities. Upon completion, students should be able to utilize a variety of music activities in the elementary school classroom.

MUS 291 Selected Topics in Music 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 292 Selected Topics in Music 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 293 Selected Topics in Music 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 296 Seminar in Music 0-1 0-3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 297 Seminar in Music 0-2 0-6 2

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 298 Seminar in Music 1-3 0-6 3

Prerequisites:
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

NUR - Nursing

	Lecture	Lab	Clinic	Credit
NUR 115 Fundamentals of Nursing	2	3	6	5

Prerequisites: Admission to the Associate Degree Nursing program
Corequisites: NUR 133, BIO 168, ENG 111

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on the application of the nursing process to provide and manage care as a member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations of health.

NUR 125 Maternal-Child Nursing	5	3	6	8

Prerequisites: NUR 115 & NUR 133
Corequisites: BIO 169, MAT 161

This course introduces nursing concepts related to the delivery of nursing care for the expanding family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families.

NUR 133 Nursing Assessment 2 3 0 3

Prerequisites: Admission to ADN Program
Corequisites: NUR 115

This course provides theory and application experience for performing nursing assessment of individuals across the life span. Emphasis is placed on interviewing and physical assessment techniques and documentation of findings appropriate for

nursing. Upon completion, students should be able to complete a health history and perform a non invasive physical assessment.

NUR 135 Adult Nursing I 5 3 9 9

Prerequisites: NUR 185
Corequisites: COM 231 or COM 233, BIO 275

This course introduces concepts related to the nursing care of individuals experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellness-illness continuum. Upon completion, students should be able to apply the nursing process to individuals experiencing acute and chronic alterations in health.

NUR 185 Mental Health Nursing 3 0 6 5

Prerequisites: NUR 125
Corequisites: PSY 150, ENG 113, Humanities – Fine Arts course (3 credits) – from approved list

This course includes concepts related to the nursing care of individuals experiencing alterations in social and psychological functioning. Emphasis is placed on utilizing the nursing process to provide and manage nursing care for individuals with common psychiatric disorders or mental health needs. Upon completion, students should be able to apply psychosocial theories in the nursing care of individuals with psychiatric/mental health needs.

NUR 187 Transition Practicum 0 0 6 2

Prerequisites: Admission to LPN transition course
Corequisites: NUR 189, MAT 161

This course provides a clinical practice component designed to assist the licensed practical nurse to transition to the role of the associate degree nurse. Emphasis is placed on developing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to demonstrate competency in the delivery of nursing care for individuals with common alterations in health.

NUR 189 Nursing Transition 1 3 0 2

Prerequisites: Admission to LPN transition course
Corequisites: NUR 187, MAT 161

This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis, and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student.

NUR 235 Adult Nursing II 4 3 15 10

Prerequisites: NUR 135
Corequisites: NUR 255, elective

This course provides expanded concepts related to nursing care for individuals experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Upon completion, students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health.

NUR 255 Professional Issues 3 0 0 3

Prerequisites: NUR 135
Corequisites: NUR 235

This course explores basic concepts of practice in the management of patient care in a complex health care system. Emphasis is placed on professional, legal, ethical, and political issues and management concepts. Upon completion, students should be able to articulate professional and management concepts.

OMT - Operations Management Technology

	Lecture	Lab	Credit
OMT 110 Introduction to Operations Management	3	0	3

Prerequisites:
Corequisites: None

This course provides an overview of the operations management field. Topics include production and operations planning, materials management, environmental health and safety, and quality management. Upon completion, students should be able to demonstrate an understanding of the operations management functions.

OMT 112 Materials Management 3 0 3

Prerequisites:
Corequisites: None

This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

OMT 253 Certified Reliability Engineer 3 0 3

Prerequisites: Completion of curriculum math requirement
Corequisites: None

This course is designed to assist in preparation for the ASQC Certified Reliability Engineer examination. Topics include design of experiments, mean time between failures, process and product reliability, and failure mode effects analysis. Upon completion, students should be able to design appropriate experiments to provide validity in data collection and apply analytical techniques to remedy process variance.

OMT 260 Issues in Operations Mgt. 3 0 3

Prerequisites: ISC 121, ISC 210, OMT 112, and ISC 130, ISC 131, ISC 132, or ISC 221
Corequisites: None

This course presents a variety of topics that highlight contemporary problems and issues related to operations management. Emphasis is placed on production and operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

OST - Office Systems Technology

	Lecture	Lab	Credit
OST 131 Keyboarding	1	2	2

Prerequisites:
Corequisites: None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should

be able to key at an acceptable speed and accuracy level using the touch system.

OST 131X Keyboarding .5 1 1

Prerequisites:
Corequisites: None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. *This is the first part of a course sequence and emphasizes the touch system and correct techniques.*

OST 131Y Keyboarding .5 1 1

Prerequisites: OST 131X
Corequisites: None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. *This is the second part of a course sequence and emphasizes the development of speed and accuracy.*

OST 132 Keyboard Skill Building 1 2 2

Prerequisites: OST 131 or OST 131X and OST 131Y
Corequisites: None

This course provides accuracy- and speed-building drills. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed. This course is specifically for the Data Entry Certificate.

OST 133 Advanced Keyboard Skill Building 1 2 2

Prerequisites: OST 132
Corequisites: None

This course is designed to increase speed and improve accuracy to meet employment tests and job requirements. Emphasis is placed on individualized diagnostic and prescriptive drills. Upon completion, students should be able to keyboard with greater speed and accuracy as measured by five-minute timed writings and skill-development paragraphs. This course is specifically for the Data Entry Certificate.

OST 134 Text Entry and Formatting 2 2 3

Prerequisites: OST 131 or OST 131X and OST 131Y
Corequisites: None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents.

OST 135 Advanced Text Entry and Format 3 2 4

Prerequisites: OST 134
Corequisites: None

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on the production of letters, manuscripts, business forms, tabulation, legal documents, and newsletters. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

OST 136 Word Processing 1 2 2

Prerequisites:
Corequisites: None

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

OST 137 Office Software Applications 1 2 2

Prerequisites:
Corequisites: None

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a handson approach. Upon completion, students should be able to use software in a business environment.

OST 148 Medical Coding Billing and Insurance 3 0 3

Prerequisites:
Corequisites: None

This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is placed on accuracy in coding, forms preparation, and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy.

OST 149 Medical Legal Issues 3 0 3

Prerequisites:
Corequisites: None

This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

OST 155 Legal Terminology 3 0 3

Prerequisites:
Corequisites: None

This course covers the terminology appropriate to the legal profession. Topics include legal research, court systems, litigation, civil and criminal law, probate, real and personal property, contracts and leases, domestic relations, equity, and corporations. Upon completion, students should be able to spell, pronounce, define, and demonstrate an understanding of the use of these legal terms.

OST 156 Legal Office Procedures 2 2 3

Prerequisites: OST 134
Corequisites: None

This course covers legal office functions involved in the operation of a law office. Emphasis is placed on procedures in the law office involving the court system, legal research, litigation, probate, and real estate, personal injury, criminal, and civil law. Upon completion, students should be able to demonstrate a high level of competence in performing legal office duties.

OST 164 Text Editing Applications 3 0 3

Prerequisites:
Corequisites: None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to

compose and edit text.

OST 184 Records Management 1 2 2

Prerequisites:
Corequisites: None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system. A PC software packages is used to illustrate and practice database management operations.

OST 191 Selected Topics in Office Systems Technology 0-1 0-3 1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. PowerPoint software is taught in this course.

OST 193 Selected Topics in Office Systems Technology 1-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

OST 196 Seminar in Office Systems Technology 0-1 0-3 1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions. ADD

OST 198 Seminar in Office Systems Technology 1-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

OST 220 Notetaking 3 0 3

Prerequisites:
Corequisites: None

This course is designed to develop efficient notetaking skills through the use of the alphabet, abbreviations, and other shortcuts. Emphasis is placed on taking accurate notes and building vocabulary. Upon completion, students should able to take notes and transcribe from office dictation, class lectures, and meetings and record accurate telephone messages.

OST 223 Machine Transcription I 1 2 2

Prerequisites: OST 134, OST 136, and OST 164
Corequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

OST 233 Office Publications Design 2 2 3

Prerequisites: OST 136
Corequisites: None

This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications. Hands-on experience using a software packages on a PC is provided to illustrate concepts and provide practice in developing documents and publications.

OST 236 Advanced Word/Information Processing 2 2 3

Prerequisites: OST 136
Corequisites: None

This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents.

OST 241 Medical Office Transcription I 1 2 2

Prerequisites: MED 121 or OST 141
Corequisites: None

This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties.

OST 243 Medical Office Simulation 2 2 3

Prerequisites: OST 131 or OST 131X and OST 131Y and OST 148
Corequisites: None

This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

OST 251 Legal Document Formatting 2 2 3

Prerequisites: OST 134, OST 155, and OST 136
Corequisites: None

This course is designed to provide experience in the preparation of various types of legal forms and documents. Emphasis is placed on formatting and keying legal forms, documents, and correspondence. Upon completion, students should be able to produce these documents with accuracy and speed.

OST 252 Legal Transcription I 2 2 3

Prerequisites: OST 155
Corequisites: OST 251

This course provides experience in using the transcriber to

produce legal correspondence, forms, and documents with mailable accuracy from recorded tapes. Emphasis is placed on operating the transcriber, developing listening skills to translate the audio into hard copy, and producing mailable documents. Upon completion, students should be able to transcribe legal forms and documents with reasonable accuracy.

OST 284 Emerging Technologies 2 0 2

Prerequisites:
Corequisites: None

This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.

OST 286 Professional Development 3 0 3

Prerequisites:
Corequisites:

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, healthy lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

OST 289 Office Systems Management 2 2 3

Prerequisites: OST 134, OST 136, and OST 164
Corequisites: None

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

Paralegal - *See LEX Course Descriptions*

PHI - Philosophy

	Lecture	Lab	Credit

PHI 215 Philosophical Issues 3 0 3

Prerequisites: ENG *111
Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

PHI 220 Western Philosophy I 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course covers Western intellectual and philosophic thought from the early Greeks through the medievalists. Emphasis is placed on such figures as the pre-Socratics, Plato, Aristotle, Epicurus, Epictetus, Augustine, Suarez, Anselm, and Aquinas. Upon completion, students should be able to trace the development of leading ideas regarding reality, knowledge, reason, and faith. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

PHI 221 Western Philosophy II 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course covers Western intellectual and philosophic thought from post-medievalists through recent thinkers. Emphasis is placed on such figures as Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Mill, and representatives of pragmatism, logical positivism, and existentialism. Upon completion, students should be able to trace the development of leading ideas concerning knowledge, reality, science, society, and the limits of reason. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

PHI 230 Introduction to Logic 3 0 3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning.

PED - Physical Education

	Lecture	Lab	Credit

PED 110 Fit and Well for Life 1 2 2

Prerequisites:
Corequisites: None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 111 Physical Fitness I 0 3 1

Prerequisites:
Corequisites: None

This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 113 Aerobics I 0 3 1

Prerequisites:
Corequisites: None

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be

able to select and implement a rhythmic aerobic exercise program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 114 Aerobics II 0 3 1

Prerequisites: PED 113 or Equivalent
Corequisites: None

This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 115 Step Aerobics I 0 3 1

Prerequisites:
Corequisites: None

This course introduces the fundamentals of step aerobics. Emphasis is placed on basic stepping up and down on an adjustable platform; cardiovascular fitness; and upper body, floor, and abdominal exercises. Upon completion students should be able to participate in basic step aerobics. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 117 Weight Training I 0 3 1

Prerequisites:
Corequisites: None

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 118 Weight Training II 0 3 1

Prerequisites: PED 117 or Equivalent
Corequisites: None

This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 122 Yoga I 0 2 1

Prerequisites:
Corequisites: None

This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 123 Yoga II 0 2 1

Prerequisites: PED 122 or Equivalent
Corequisites: None

This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate advanced procedures of yoga. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 125 Self-Defense-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. Various styles of martial arts may be introduced in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 126 Self-Defense-Intermediate 0 2 1

Prerequisites: PED 125 or Equivalent
Corequisites: None

This course is designed to aid students in building on the techniques and skills developed in PED 125. Emphasis is placed on the appropriate psychological and physiological responses to various encounters. Upon completion, students should be able to demonstrate intermediate skills in self-defense stances, blocks, punches, and kick combinations. Students will develop greater skills in a specific martial art. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 128 Golf-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. Extra fees are charged for this course and students must provide their own clubs. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 129 Golf-Intermediate 0 2 1

Prerequisites: PED 128 or Equivalent
Corequisites: None

This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf. Extra fees are charged for this course and students must provide their own clubs. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 130 Tennis-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. Students must provide their own racket and balls. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 131 Tennis-Intermediate 0 2 1

Prerequisites: PED 130 or Equivalent
Corequisites: None

This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. Students must provide their own racket and balls. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 135 Fencing-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course introduces the fundamentals of fencing. Emphasis is placed on grip, stance, and establishment of good techniques for attacks and parries. Upon completion, students should be able to perform elementary foil techniques and demonstrate the basic skills of fencing. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 136 Fencing-Intermediate 0 2 1

Prerequisites: PED 135 or Equivalent
Corequisites: None

This course covers more advanced fencing techniques. Topics include advanced foil techniques and elementary sabre techniques. Upon completion, students should be able to participate in competitive fencing. Instruction in the use of epee techniques will be presented in this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 152 Swimming-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 153 Swimming-Intermediate 0 2 1

Prerequisites: PED 152 or Equivalent
Corequisites: None

This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 154 Swimming-for Fitness 0 2 1

Prerequisites: Demonstrated swimming ability
Corequisites: None

This course introduces lap swimming, aquacieses, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 155 Water Aerobics 0 3 1

Prerequisites:
Corequisites: None

This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 160 Canoeing-Basic 0 2 1

Prerequisites: PED 152 or Demonstrated Swimming Ability
Corequisites: None

This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, safe-handling, and self-rescue skills. Instruction will be provided in paddling a canoe both solo and tandem; extra fees are charged for equipment. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 161 Canoeing-Rivers 0 2 1

Prerequisites: PED 160 or Demonstrated Swimming Ability
Corequisites: None

This course provides practice in the basic skills of river and whitewater canoeing. Emphasis is placed on river running, safety, and care of equipment. Upon completion, students should be able to demonstrate navigation in a moving current, canoe safety, and self-rescue skills. Instruction will be provided in paddling a canoe both solo and tandem; extra fees are charged for equipment. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 163 Kayaking-Basic 0 2 1

Prerequisites: PED 152 or Demonstrated Swimming Ability
Corequisites: None

This course is designed to teach the basic skills of kayaking. Topics include forward and reverse strokes, sweeps, Eskimo roll, and self-rescue skills. Upon completion, students should be able to maneuver and demonstrate safe kayaking practices. Although intended for students who have an interest in moving water, this course is valuable for those who want to paddle on lakes; extra fees are charged for equipment. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 164 Kayaking-Whitewater 0 2 1

Prerequisites: PED 163 or Demonstrated Swimming Ability
Corequisites: None

This course covers the skills necessary to safely negotiate Class II and Class III rapids. Topics include execution of a river roll, maneuvering, rescuing and retrieving kayaker and equipment. Upon completion of this class, students should be able to safely navigate Class II and Class III rapids and demonstrate the rescue of a kayaker who is in the water. Extra fees are charged for equipment. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 169 Orienteering 0 2 1

Prerequisites:
Corequisites: None

This course introduces the various types of orienteering and proper orienteering techniques. Emphasis is placed on defining various types of orienteering and recognizing and drawing topographic map symbols. Upon completion, students should be able to draw topographic map symbols and negotiate a 3-5 km cross-country orienteering course in a specified time period. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 170 Backpacking 0 2 1

Prerequisites:
Corequisites: None

This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 173 Rock Climbing 0 2 1

Prerequisites:
Corequisites: None

This course teaches the fundamental skills and safety of rock climbing. Topics include rock climbing, bouldering, rappelling, the correct method of belaying for climbing and rappelling, and knowledge of equipment. Upon completion, students should be able to demonstrate strong and skillful techniques in climbing and rappelling. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 174 Wilderness Pursuits 0 2 1

Prerequisites:
Corequisites: None

This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 181 Snow Skiing-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift, and perform basic maneuvers on skis. Extra fees are charged for this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 182 Snow Skiing Intermediate 0 2 1

Prerequisites: PED 181 or Equivalent
Corequisites: None

This course is designed to further develop snow skiing skills. Topics include selection and care of equipment, parallel skiing and turns, christies, advanced jumps, trail skiing, and slalom racing. Upon completion, students should be able to ski on varying terrains and snow conditions with control and safety. Extra fees are charged for this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 183 Folk Dancing 0 2 1

Prerequisites:
Corequisites: None

This course teaches the fundamental folk dance movements along with cultural traditions from various countries. Emphasis is placed on the history and traditions of the folk dance as well as the movements and the dances themselves. Upon completion, students should be able to demonstrate folk dances as well as knowledge of their origins and cultural traditions. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 187 Social Dance-Beginning 0 2 1

Prerequisites:
Corequisites: None

This course introduces the fundamentals of popular social dances. Emphasis is placed on basic social dance techniques, dances, and a brief history of social dance. Upon completion, students should be able to demonstrate specific dance skills and perform some dances. Some dances included in this course are the Cha-Cha, Fox Trot, Waltz, Swing, Tango and Rumba. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 188 Social Dance-Intermediate 0 2 1

Prerequisites: PED 187 or Equivalent
Corequisites: None

This course covers advanced fundamentals of social dancing. Topics include rhythm, appearance, and routine sequence. Upon completion, students should be able to perform more difficult steps and types of dances. Some dances included in this course are the Swing, Rumba, Waltz, Fox Trot, Cha-Cha and basic Mambo. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 191 Selected Topics in Physical Education 0 2 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PED 260 Lifeguard Training 1 2 2

Prerequisites: PED 153 or Equivalent
Corequisites: None

This course covers the skills, knowledge, and techniques of lifesaving and lifeguarding. Topics include identifying and minimizing aquatic hazards, recognizing and effectively rescuing people in distress, and developing safety skills. Upon completion, students should be able to demonstrate skills, knowledge, and techniques of lifesaving and lifeguarding to pass American Red Cross lifeguarding certification. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 262 Water Safety Instructor 1 2 2

Prerequisites: PED 153 or Equivalent
Corequisites: None

This course covers the knowledge and skills necessary to teach and certify others in the American Red Cross certification swimming programs. Emphasis is placed on teaching basic rescue skills, strengthening swimming strokes, and rescue and safety procedures. Upon completion, students should be able to demonstrate skills, knowledge, and techniques to pass the American Red Cross Water Safety Instructor's certification. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

PED 291 Selected Topics in Physical Education 0 3 1

Prerequisites:
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PHS - Physical Science, Basic

	Lecture	Lab	Credit
PHS 110 Basic Physical Science	3	2	4

Prerequisites:
Corequisites: None

This course introduces the physical environment with emphasis on the laws and physical concepts that impact the world and universe. Topics include astronomy, geology, meteorology, general chemistry, and general physics. Upon completion, students should be able to describe the forces and composition of the earth and universe.

PHS 140 Weather and Climate 3 0 3

Prerequisites:
Corequisites: None

This course introduces the nature, origin, processes, and dynamics of the earth's atmospheric environment. Topics include general weather patterns, climate, and ecological influences on the atmosphere. Upon completion, students should be able to demonstrate an understanding of weather formation, precipitation, storm patterns, and processes of atmospheric pollution.

PSF - Physical Fitness Technology

	Lecture	Lab	Credit
PSF 110 Exercise Science	4	0	4

Prerequisites:
Corequisites: None

This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical adaptations to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon completion, students should be able to identify and describe physiological responses and adaptations to exercise.

PSF 111 Fitness & Exercise Testing I 3 2 4

Prerequisites:
Corequisites: None

This course introduces the students to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.

PSF 114 Physical Fitness Theory & Instruction 4 0 4

Prerequisites: PSF 110
Corequisites: None

This course provides information about related components of fitness and general information about the industry. Topics include the study of the components of fitness, theories of exercise and fitness, and information about the industry. Upon completion, students should be able to identify fitness components and demonstrate these in an exercise setting.

PSF 116 Prevention & Care of Exercise Injuries 1 2 2

Prerequisites:
Corequisites: None

This course provides information about the care and prevention of exercise injuries. Topics include proper procedures, prevention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowledge and skills necessary to prevent and care for exercise related injuries.

PSF 120 Group Exercise Instruction 2 2 3

Prerequisites: PSF 114
Corequisites: None

This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.

PSF 210 Personal Training 2 2 3

Prerequisites: PSF 110 and PSF 111
Corequisites: None

This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

PSF 212 Exercise Programming 2 2 3

Prerequisites: PSF 110
Corequisites: None

This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.

PSF 218 Lifestyle Changes & Wellness 3 2 4

Prerequisites:
Corequisites: None

This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon

completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting.

PTA - Physical Therapist Assistant

		Lecture	Lab	Clinic	Credit
PTA 110	**Introduction to Physical Therapy**	2	3	0	3

Prerequisites: BIO 168
Corequisites: None
This course introduces the field of physical therapy including the history and standards of practice for the physical therapist assistant and basic treatment techniques. Emphasis is placed on ethical and legal considerations, universal precautions, vital signs, documentation, basic patient preparation and treatment skills, and architectural barrier screening. Upon completion, students should be able to explain the role of the physical therapist assistant and demonstrate competence in basic techniques of patient care.

PTA 125	**Gross and Functional Anatomy**	3	6	0	5

Prerequisites: BIO 168, BIO 169, and PTA 110
Corequisites: PTA 135 and PTA 145
This course provides an in-depth, clinically oriented survey of gross and functional anatomy. Emphasis is placed on musculoskeletal and nervous systems and clinical biomechanics, including goniometry, basic manual muscle testing, and components of normal gait. Upon completion, students should be able to identify specific anatomical structures and describe, observe, and measure musculoskeletal posture and function.

PTA 135	**Pathology**	4	0	0	4

Prerequisites: BIO 168, BIO 169, and PTA 110
Corequisites: PTA 125 and PTA 145
This course introduces principles of pathology, processes of and normal responses to injury and disease, and changes related to aging. Emphasis is placed upon conditions most commonly treated in physical therapy. Upon completion, students should be able to discuss basic pathological processes and identify etiology, signs, symptoms, complications, treatment options, and prognoses of specific orthopedic conditions.

PTA 145	**Therapeutic Procedures**	2	6	0	4

Prerequisites: BIO 168, BIO 169, and PTA 110
Corequisites: PTA 125 and PTA 135
This course provides a detailed study of specific treatment procedures and the physiological principles and techniques involved. Emphasis is placed on the correct application of superficial heat and cold, massage and soft tissue mobilization, ultrasound, diathermy, traction, and electrical stimulation. Upon completion, students should be able to demonstrate competence in the application of these modalities and explain the indications, contraindications, effects, and precautions for each.

PTA 165	**PTA Clinical I**	0	0	9	3

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 185, PTA 215, and PTA 225
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PTA 185	**PTA Clinical II**	0	0	9	3

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 165, PTA 215, and PTA 225
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PTA 212	**Health Care/Resources**	2	0	0	2

Prerequisites: PTA 235
Corequisites: PTA 222, PTA 245, and PTA 255
This course provides an overview of various aspects of health care delivery systems and the interrelationships of health care team members. Topics include health agencies and their functions, health care team member roles, management, and other health care issues. Upon completion, students should be able to discuss the functions of health organizations and team members and aspects of health care affecting physical therapy delivery.

PTA 215	**Therapeutic Exercise**	2	3	0	3

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 225, PTA 165, and PTA 185
This course introduces basic concepts of strengthening, endurance, and flexibility exercise and balance, gait, and posture training. Emphasis is placed on applying techniques to the treatment of orthopedic conditions. Upon completion, students should be able to safely and effectively execute basic exercise programs and balance, gait, and posture training.

PTA 222	**Professional Interactions**	2	0	0	2

Prerequisites: PTA 235
Corequisites: PTA 212, PTA 245, and PTA 255
This course is designed to assist in the development of effective interpersonal skills in the physical therapist assistant setting. Topics include reactions to disability, the grieving process, methods of communication, motivation, health promotion, disease prevention, and aging. Upon completion, students should be able to discuss and demonstrate methods for achieving effective interaction with patients, families, the public, and other health care providers.

PTA 225	**Introduction to Rehabilitation**	3	3	0	4

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 215, PTA 165, and PTA 185
This course covers cardiovascular, pulmonary, and integumentary conditions, as well as causes and treatment of amputations. Emphasis is placed upon pathological processes as well as comprehensive treatment of the various conditions studied. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

PTA 235	**Neurological Rehabilitation**	3	6	0	5

Prerequisites: PTA 215, PTA 225, PTA 165, and PTA 185
Corequisites: None
This course covers neurological and neuromuscular condi-

tions experienced throughout the life span. Topics include the pathology of selected conditions and the methods and rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

PTA 245 PTA Clinical III 0 0 12 4

Prerequisites: PTA 235
Corequisites: PTA 212, PTA 222, and PTA 255
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PTA 255 PTA Clinical IV 0 0 12 4

Prerequisites: PTA 235
Corequisites: PTA 212, PTA 222, and PTA 245
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PHY - Physics

	Lecture	Lab	Credit

PHY 110 Conceptual Physics 3 0 3

Prerequisites:
Corequisites: PHY 110A
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. You must register for both PHY 110 and PHY 110A unless you have received prior credit for one of these classes. Upon completion, students should be able to describe examples and applications of the principles studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

PHY 110A Conceptual Physics Lab 0 2 1

Prerequisites:
Corequisites: PHY 110
This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. You must register for both PHY 110 and PHY 110A unless you have received prior credit for one of these classes. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 131 Physics-Mechanics 3 2 4

Prerequisites: MAT 121 or MAT 161
Corequisites: None
This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. Credit by exam for PHY 151 can be obtained by request upon completion.

PHY 132 Physics-Electricity and Magnetism 3 2 4

Prerequisites: PHY 131 or equivalent
Corequisites: None
This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.
Credit by exam for PHY 152 can be obtained by request upon completion.

PHY 133 Physics-Sound and Light 3 2 4

Prerequisites: PHY 131 or equivalent
Corequisites: None
This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 151 College Physics I 3 2 4

Prerequisites: MAT 161, MAT 172, MAT 175, MAT 1504, or MAT 3507 (one of these)
Corequisites: None
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 152 College Physics II 3 2 4

Prerequisites: PHY 151 or equivalent or permission
Corequisites: None
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 153 Modern Topics in Physics 3 2 4

Prerequisites: PHY 151 or equivalent
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, basic quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 251 General Physics I 3 3 4

Prerequisites: MAT 271 or MAT 1524 or equivalent
Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 252 General Physics II 3 3 4

Prerequisites: MAT 272 and PHY 251 or equivalent
Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 253 Modern Physics 3 3 4

Prerequisites: PHY 251 and MAT 272 or equivalent
Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course is recommended for students majoring in physics, chemistry, or as an elective for engineering.

PLA - Plastics

See also ATR-Automation, DDF-Design Drafting, DFT-Drafting, ISC-Industrial Science, and MEC-Mechanical Engineering Technology for other courses.

Lecture Lab Credit

PLA 110 Introduction to Plastics 2 0 2

Prerequisites: None
Corequisites: None

This course introduces the plastics processing industry, including thermoplastics and thermosets. Emphasis is placed on the description, classification, and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to describe the differences between thermoplastics and thermosets and recognize the basics of the different plastic processes.

PLU - Plumbing

Lecture Lab Credit

PLU 110 Modern Plumbing 4 15 9

Prerequisites:
Corequisites: None

This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

PLU 111 Intro to Basic Plumbing 1 3 2

Prerequisites:
Corequisites: None

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

PLU 120 Plumbing Applications 4 15 9

Prerequisites:
Corequisites: None

This course covers general plumbing layout, fixtures, and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters, and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

PLU 130 Plumbing Systems 3 9 6

Prerequisites:
Corequisites: None

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

POL - Political Science

	Lecture	Lab	Credit
POL 120 American Government	3	0	3

Prerequisites:
Corequisites: None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

POL 193 Selected Topics in Political Science	1-3	0-6	3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

POL 210 Comparative Government	3	0	3

Prerequisites:
Corequisites: None

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

POL 220 International Relations	3	0	3

Prerequisites:
Corequisites: None

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

POS - Postal Service

	Lecture	Lab	Credit
POS 110 Postal Service History and Organization	3	0	3

Prerequisites:
Corequisites: None

This course covers the history and organization of the US Postal Service. Topics include postal service history, policies, philosophies, regulations, rules, and organization. Upon completion, students should be able to explain the history and organization of the US Postal Service.

POS 115 Processing and Distribution	3	0	3

Prerequisites:
Corequisites: None

This course covers the steps involved in reviewing, processing, and dispatching all classes and types of mail. Topics include quality control, platform operation, dispatch discipline, automation and mechanization, mail flow, manual operations, mail preparation, and premium service. Upon completion, students should be able to explain the flow of mail from sender to receiver and the importance of service standards.

POS 120 Postal Operations Support	3	0	3

Prerequisites:
Corequisites: None

This course covers in-plant support and customer services operations programs support. Topics include quality improvement, address management systems, transportation and networks, delivery services, mail processing, bar coding, and automation sort plans. Upon completion, students should be able to explain postal mechanization, machine distribution, operational planning, budgeting, and functional coordination with customer services.

POS 125 Postal Delivery/Collection	3	0	3

Prerequisites:
Corequisites: None

This course is an in-depth study of delivery, collection, and Function-Four review. Topics include carrier responsibilities, delivery and collection rules, time keeping, equipment and supplies, mail count and route inspection, parcel post, and Function-Four review. Upon completion, students should be able to explain the duties and skills required in the carrier crafts, the management of delivery services, and staffing and scheduling audits.

POS 130 POS Support & Finance	3	0	3

Prerequisites:
Corequisites: None

This course covers information and procedures necessary to administer financial control of post offices. Topics include protecting funds and accountable paper, recording receipts and disbursements, verifying accountability, postal service reports, and controlling receipts and receipt forms. Upon completion, students should be able to explain postal revenue receipt and control, budgeting, financial accounting/reporting, time keeping, travel regulations, and administrative services.

POS 135 Officer-in-Charge Training	3	0	3

Prerequisites:
Corequisites: None

This course covers the duties of a window clerk. Topics include window services, image and customer relations, one-on-one selling, postage meters, mail classifications, claims and inquiry, and daily financial reporting. Upon completion, students should be able to explain effective customer relations, retailing postal products, professional window service operations, and the duties of customer service representatives.

POS 140 POS Safety Training	3	0	3

Prerequisites:
Corequisites: None

This course covers postal work safety. Topics include safety

inspections, hazard recognition and abatement, accident investigation and reporting, OSHA, and occupational, health, and motor vehicle safety. Upon completion, students should be able to explain principles of safety, job safety analysis, OSHA requirements, current practices related to health hazards, and necessary documentation.

PRN - Printing

	Lecture	Lab	Credit

PRN 131 Flexography I 2 4 4

Prerequisites:
Corequisites: None

This course provides basic hands-on instruction in flexographic image preparation, platemaking, mounting, and printing. Emphasis is placed on taking press measurements, making and mounting plates, and obtaining quality in press operation on a narrow-web press. Upon completion, students should be able to describe and perform flexographic production procedures in pre-press, press setup, press operation, and die-cutting.

PRN 132 Flexography II 2 4 4

Prerequisites: PRN 131
Corequisites: None

This course is a continuation of PRN 131 and introduces wide-web presses. Emphasis is placed on troubleshooting press problems, color matching, parts identification, make-ready, and setup of narrow-web, wide-web, or corrugated presses. Upon completion, students should be able to produce advanced projects involving all flexographic production phases. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 140 Bindery and Finishing 1 2 2

Prerequisites:
Corequisites: None

This course covers bindery and finishing operations. Topics include folding, cutting, gathering, binding, embossing, stamping, die-cutting, drilling, punching, mailing, and packaging. Upon completion, students should be able to operate various finishing and bindery equipment and demonstrate an understanding of the relationship of finishing to printing processes.

PRN 155 Screen Printing I 1 3 2

Prerequisites:
Corequisites: None

This course covers screen printing techniques and materials. Topics include methods, materials, design, and image and stencil preparation techniques. Upon completion, students should be able to produce single- or multi-color projects.

PRN 156 Screen Printing II 1 3 2

Prerequisites: PRN 155
Corequisites: None

This course is a continuation of PRN 155. Emphasis is placed on advanced techniques and current industry practices. Upon completion, students should be able to produce multi-color projects utilizing various photographic stencil methods and substrates.

PRN 221 Offset Press Operations 1 4 3

Prerequisites:
Corequisites: None

This course covers advanced lithographic theory and provides extensive hands-on operating experience. Emphasis is placed on make-ready, press operation, maintenance, and troubleshooting of multi-color jobs on sheet-fed offset presses and duplicators. Upon completion, students should be able to set up, run, maintain, and produce commercial-quality multi-color work.

PRN 231 Flexography III 2 4 4

Prerequisites: PRN 132
Corequisites: None

This course is a continuation of PRN 132. Emphasis is placed on the products made and processes used in the industry. Upon completion, students should be able to demonstrate an understanding of advanced production techniques of flexographic products. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 232 Flexography IV 2 4 4

Prerequisites: PRN 231
Corequisites: None

This course provides opportunities for advanced and specialized study in flexography. Emphasis is placed on specialized product design and production. Upon completion, students should be able to demonstrate an understanding of the comprehensive scope of the flexographic industry, products, and processes. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 240 Print Estimating / Planning 3 0 3

Prerequisites: GRA 121
Corequisites: None

This course covers printing economics, development of cost centers, job flow throughout departments, and material and labor costs. Topics include budgeted, hourly, cost-rate derivation; production standards and data; and analysis of other estimating procedures including computer-assisted estimating. Upon completion, students should be able to demonstrate an understanding of economic factors of the printing industry and determine all production costs of printed jobs.

PRN 241 Flexography Applications I 2 4 4

Prerequisites: GRA 152 and PRN 131
Corequisites: None

This course provides an opportunity to specialize in certain applications in flexographic printing. Emphasis is placed on understanding color and production concerns in order to produce products. Upon completion, students should be able to troubleshoot color problems during printing and relate them to the production procedures. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 242 Flexography Applications II 2 4 4

Prerequisites: PRN 241, GRA 153, and GRA 255
Corequisites: None

This course provides an opportunity to produce comprehensive projects, including color work on special substrates using specialty inks. Emphasis is placed on compensation for press limitations to produce high-quality color products. Upon completion, students should be able to produce color images on a variety of substrates and troubleshoot and solve production problems. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PSY - Psychology

	Lecture	Lab	Credit
PSY 141 Psych of Death and Dying	3	0	3

Prerequisites:
Corequisites: None

This course presents psychological perspectives on death and the dying. Topics include the culturally diverse aspects of death and the grieving process, adjustment mechanisms, interventions, and the psychological and ethical dimensions of death and dying. Upon completion, students should be able to demonstrate an understanding of the psychological aspects of death and dying. *This course is intended for all Associate degree programs.*

PSY 150 General Psychology	3	0	3

Prerequisites:
Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

PSY 193 Selected Topics in Psychology	1-3	0-6	3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PSY 241 Developmental Psychology	3	0	3

Prerequisites: PSY 150
Corequisites: None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

PSY 281 Abnormal Psychology	3	0	3

Prerequisites: PSY 150
Corequisites: None

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

RED - Reading

See additional developmental reading courses in the Pre-College Programs section of this catalog.

	Lecture	Lab	Credit
RED 111 Critical Reading for College	3	0	3

Prerequisites: RED 090 or Appropriate Placement Test Score(s)
Corequisites: None

This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines. In addition, this course is designed to improve reading speed.

REL - Religion

	Lecture	Lab	Clinic	Credit
REL 110 World Religions	3	0	0	3

Prerequisites: None
Corequisites: None

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

REL 211 Introduction to Old Testament	3	0	0	3

Prerequisites: None
Corequisites: None
Start Term: 1997*02

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

REL 212 Introduction to New Testament	3	0	0	3

Prerequisites: None
Corequisites: None
Start Term: 1997*02

This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

REL 221 Religion in America 3 0 0 3

Prerequisites: None
Corequisites: None
This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

RCP - Respiratory Therapy

		Lecture	Lab	Clinic	Credit
RCP 110	**Introduction to Respiratory Care**	3	3	0	4

Prerequisites: Enrollment in the Respiratory Therapy program
Corequisites: RCP 123
This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 111 Therapeutics/ Diagnostics 4 3 0 5

Prerequisites: RCP 110
Corequisites: None
This course is a continuation of RCP 110. Emphasis is placed on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 112 Patient Management 3 3 0 4

Prerequisites: RCP 111, ENG 113 or ENG 114, MAT 115, or MAT 140, or MAT 161
Corequisites: None
This course provides entry-level skills in adult/pediatric mechanical ventilation and respiratory care procedures in traditional and alternative settings. Emphasis is placed on therapeutic modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation, and monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 113 Respiratory Care Pharmacology 2 0 0 2

Prerequisites: Enrollment in the Respiratory Therapy program
Corequisites: None
This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence though written evaluations.

RCP 114 Cardiopulmonary Anatomy and Physiology 3 0 0 3

Prerequisites: BIO 163, or BIO 165 and BIO 166, or BIO 168 and BIO 169
Corequisites: None
This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation.

RCP 115 Cardiopulmonary Pathophysiology 2 0 0 2

Prerequisites: BIO 163 or BIO 168 and BIO 169
Corequisites: RCP 111, RCP 113, RCP 114, RCP 133
This course introduces the etiology, pathogenesis, and physiology of cardiopulmonary disease and disorders. Emphasis is placed on clinical signs and symptoms along with diagnoses, completions, prognoses, and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations.

RCP 123 Special Practice Lab 0 3 0 1

Prerequisites: Enrollment in the Respiratory Therapy program
Corequisites: RCP 110
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

RCP 133 Respiratory Care Clinical Practice I 0 0 9 3

Prerequisites: Enrollment in the Respiratory Therapy program
Corequisites: RCP 110
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 143 Respiratory Care Clinical Practice II 0 0 9 3

Prerequisites: RCP 111
Corequisites: RCP 112
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 210 Critical Care Concepts 3 3 0 4

Prerequisites: Successful completion of three semesters of the Respiratory Therapy program
Corequisites: None
This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 211 Advanced Monitoring/ Procedures 3 3 0 4

Prerequisites: RCP 210
Corequisites: None
This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design, and recommend appropriate care plans through written and laboratory evaluations.

RCP 214 Neonatal/Pediatric Respiratory Care 1 3 0 2

Prerequisites: RCP 111
Corequisites: None
This course provides in-depth coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on neonatal and pediatric pathophysiology and on the special therapeutic needs of neonates and children. Upon completion, students should be able to demonstrate competence in these concepts through written and laboratory evaluations.

RCP 215 Career Prep-Advanced Level 0 3 0 1

Prerequisites: Enrollment in or completion of the Respiratory Therapy program
Corequisites: None
This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam and supervision and management. Upon completion, students should be able to successfully complete the appropriate self-assessment examinations and meet the requirements for employment.

RCP 235 RCP Clinical Practice IV 0 0 15 5

Prerequisites: RCP 111
Corequisites: RCP 210
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 247 RCP Clinical Practice V 0 0 21 7

Prerequisites: RCP 210
Corequisites: RCP 211
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

Secretarial

(See OST Office Systems Technology)

Sign Language

(See ALS American Sign Language)

Small Engine Repair

(See Corporate and Continuing Education section of this catalog. Call 704-330-6220 for course information.)

SOC - Sociology

Lecture Lab Credit

SOC 193 Selected Topics in Sociology 1-3 0-6 3

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SOC 210 Introduction to Sociology 3 0 3

Prerequisites:
Corequisites: None
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. T*his course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

SOC 213 Sociology of the Family 3 0 3

Prerequisites:
Corequisites: None
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*
Note: This course is a Writing Intensive Elective for UNCC.

SOC 225 Social Diversity 3 0 3

Prerequisites:
Corequisites: None
This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

SPA - Spanish

Lecture Lab Credit

SPA 111 Elementary Spanish I 3 0 3

Prerequisites: None
Corequisites: SPA 181
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and

written Spanish and demonstrate cultural awareness. When registering for this class, students will automatically be registered for SPA 181, Spanish Lab 1. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 112 Elementary Spanish II 3 0 3

Prerequisites: SPA 111 or consent of Division Director.
Corequisites: SPA 182

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. When registering for this class, students will automatically be registered for SPA 182, Spanish Lab 2. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 120 Spanish for the Workplace 3 0 3

Prerequisites: None
Corequisites: None

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

SPA 151 Hispanic Literature 3 0 3

Prerequisites: ENG 111
Corequisites: None

This course includes selected readings by Hispanic writers. Topics include fictional and non-fictional works by representative authors from a variety of genres and literary periods. Upon completion, students should be able to analyze and discuss selected texts within relevant cultural and historical contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

SPA 161 Cultural Immersion 2 3 3

Prerequisites: SPA 111
Corequisites: None

This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

SPA 181 Spanish Lab 1 0 2 1

Prerequisites: None
Corequisites: SPA111

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

SPA 182 Spanish Lab 2 0 2 1

Prerequisites: SPA 181 or consent of Division Director.
Corequisites: SPA112

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness.

SPA 211 Intermediate Spanish I 3 0 3

Prerequisites: SPA 112 or consent of Division Director.
Corequisites: 281

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. When registering for this class, students will automatically be registered for SPA 281, Spanish Lab 3. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 212 Intermediate Spanish II 3 0 3

Prerequisites: SPA 211 or consent of Division Director.
Corequisites: SPA 282

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. When registering for this class, students will automatically be registered for SPA 282, Spanish Lab 4. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 221 Spanish Conversation 3 0 3

Prerequisites: SPA 212
Corequisites: None

This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.

SPA 281 Spanish Lab 3 0 2 1

Prerequisites: SPA 182 or consent of Division Director.
Corequisites: SPA 211

This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

SPA 282 Spanish Lab 4 0 2 1

Prerequisites: SPA 281 or consent Division Director.
Corequisites: SPA 212

This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language.

Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

Speech Communication

(See COM Communication)

Study Skills

(See ACA Academic / Life Skills)

SAB - Substance Abuse

		Lecture	Lab	Clinic	Credit
SAB 110	**Substance Abuse Overview**	3	0	0	3

Prerequisites:
Corequisites: None
This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.

SAB 120	**Intake and Assessment**	3	0	0	3

Prerequisites:
Corequisites: None
This course develops processes for establishment of client rapport, elicitation of client information on which therapeutic activities are based, and stimulation of client introspection. Topics include diagnostic criteria, functions of counseling, nonverbal behavior, collaterals and significant others, dual diagnosis, client strengths and weakness, uncooperative clients, and crisis interventions. Upon completion, students should be able to establish communication with clients, recognize disorders, obtain information for counseling, and terminate the counseling process. This course is a unique concentration requirement of the Substance Abuse concentration in the Human Services Technology program.

SAB 125	**Substance Abuse Case Management**	2	2	0	3

Prerequisites: SAB 120
Corequisites: None
This course provides case management activities, including record keeping, recovery issues, community resources, and continuum of care. Emphasis is placed on establishing a systematic approach to monitor the treatment plan and maintain quality of life. Upon completion, students should be able to assist clients in the continuum of care as an ongoing recovery process and develop agency networking. This course is a unique concentration requirement of the Substance Abuse concentration in the Human Services Technology program.

SAB 135	**Addictive Process**	3	0	0	3

Prerequisites: PSY 150
Corequisites: None
This course explores the physical, emotional, psychological, and cultural aspects of the addictive process. Emphasis is placed on addictions to food, sex, alcohol, drugs, work, gambling, and relationships. Upon completion, students should be able to identify the effects, prevention strategies, and treatment methods associated with addictive disorders.

SAB 210	**Sub Abuse Counseling**	2	2	0	3

Prerequisites:
Corequisites: None
This course provides theory and skills acquisition by utilizing intervention strategies designed to obtain therapeutic information, support recovery, and prevent relapse. Topics include counseling individuals and dysfunctional families, screening instruments, counseling techniques and approaches, recovery and relapse, and special populations. Upon completion, students should be able to discuss issues critical to recovery, identify intervention models, and initiate a procedure culminating in cognitive/behavioral change.

SAB 220	**Group Techniques/ Therapy**	2	2	0	3

Prerequisites: HSE 112
Corequisites: None
This course provides a practical guide to diverse methods of group therapy models used in the specific treatment of substance abuse and addiction. Emphasis is placed on the theory and practice of group therapy models specifically designed to treat the cognitive distortions of addiction and substance abuse. Upon completion, students should be able to skillfully practice the group dynamics and techniques formulated for substance abuse and addiction.

SAB 230	**Family Therapy**	2	2	0	3

Prerequisites: Successful completion of 12 SHC in the SAB concentration
Corequisites: None
This course covers the theories and models of family systems therapy as designed for families affected by substance abuse and addiction. Emphasis is placed on structures and procedures necessary for successful family therapy, including the needs, types of resistance, and individual family dynamics. Upon completion, students should be able to understand and identify dynamics and patterns unique to families affected by substance abuse and the appropriate model of treatment.

SAB 240	**SAB Issues in Client Service**	3	0	0	3

Prerequisites: Successful completion of 12 SHC in the SAB concentration
Corequisites: None
This course introduces systems of professional standards, values, and issues in substance abuse counseling. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-making models to current issues. This course is a unique concentration requirement of the Substance Abuse concentration in the Human Services Technology program.

SRV - Surveying

See also CIV Civil Engineering Technology for other course descriptions.

	Lecture	Lab	Credit

SRV 110 Surveying I 2 6 4

Prerequisites: EGR 115 and MAT 121 or MAT 171
Corequisites: None
This course introduces the theory and practice of plane surveying. Topics include measuring distances and angles, differential and profile leveling, compass applications, topography, and mapping. Upon completion, students should be able to use/care for surveying instruments, demonstrate field note techniques, and apply the theory and practice of plane surveying.

SRV 111 Surveying II 2 6 4

Prerequisites: SRV 110
Corequisites: CIV 125
This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves; geometric design and layout; planning of cross-section and grade line; drainage; earthwork calculations; and mass diagrams. Upon completion, students should be able to calculate and lay out highway curves; prepare roadway plans, profiles, and sections; and perform slope staking.

SRV 192 Selected Topics in Surveying Technology 1 3 2

Prerequisites: Enrollment in the program or Division Consent
Corequisites: None
This course provides an opportunity to explore topics of current interest in Surveying Technology. Emphasis is placed on subject matter appropriate to Surveying Technology. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SRV 198 Seminar in Surveying Technology 2 3 3

Prerequisites: Enrollment in the Surveying Technology Program
Corequisites: None
This course provides an opportunity to explore topics of current interest in Surveying Technology. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SRV 210 Surveying III 2 6 4

Prerequisites: SRV 110
Corequisites: CIV 125
This course introduces boundary surveying, land partitioning, and calculations of areas. Topics include advanced traverses and adjustments, preparation of survey documents, and other related topics. Upon completion, students should be able to research, survey, and map a boundary.

SRV 220 Surveying Law 2 2 3

Prerequisites: SRV 210
Corequisites: None
This course introduces the law as related to the practice of surveying. Topics include surveyors' responsibilities, deed descriptions, title searches, eminent domain, easements, weight of evidence, riparian rights, and other related topics. Upon completion, students should be able to identify and apply the basic legal aspects associated with the practice of land surveying.

SRV 230 Subdivision Planning 1 6 3

Prerequisites: SRV 111, SRV 240, SRV 250, and CIV 211
Corequisites: None
This course covers the planning aspects of residential subdivisions from analysis of owner and municipal requirements to plat layout and design. Topics include municipal codes, lot sizing, roads, incidental drainage, esthetic considerations, and other related topics. Upon completion, students should be able to prepare a set of subdivision plans.

SRV 240 Topographic / Site Surveying 2 6 4

Prerequisites: SRV 210
Corequisites: None
This course covers topographic, site, and construction surveying. Topics include topographic mapping, earthwork, site planning, construction staking, and other related topics. Upon completion, students should be able to prepare topographic maps and site plans and locate and stake out construction projects.

SRV 250 Advanced Surveying 2 6 4

Prerequisites: SRV 210
Corequisites: None
This course covers advanced topics in surveying. Topics include photogrammetry, astronomical observations, coordinate systems, error theory, GPS, GIS, Public Land System, and other related topics. Upon completion, students should be able to apply advanced techniques to the solution of complex surveying problems.

SRV 260 Field and Office Practices 1 3 2

Prerequisites: Completion of three semesters of the Surveying Technology program
Corequisites: None
This course covers surveying project management, estimating, and responsibilities of surveying personnel. Topics include record-keeping, starting and operating a surveying business, contracts, regulations, taxes, personnel management, and professional ethics. Upon completion, students should be able to understand the requirements of operating a professional land surveying business.

Theatre

(See DRA Drama/Theatre)

TAT - Travel and Tourism

	Lecture	Lab	Credit

TAT 110 Introduction to Travel and Tourism 3 0 3

Prerequisites:
Corequisites: None
This course provides an overview of the travel and tourism industry. Topics include the history, career opportunities, economic impact, and terminology associated with the travel industry and the roles of travel agencies and suppliers. Upon completion, students should be able to demonstrate a basic understanding of the travel and tourism industry.

TAT 112 Domestic Reservations and Ticketing 3 2 4

Prerequisites:
Corequisites: None

This course introduces the basic procedures for manual and computer-generated domestic travel documents. Topics include domestic airline scheduling and fares, industry codes, document preparation, and creation of automated reservations. Upon completion, students should be able to prepare manual documents and construct a basic passenger name record using an airline computer reservation system. System One/Amadeus Certification texts/training materials will be the focus of the instruction process including the introduction of the internet as a research tool.

TAT 114 International Reservations and Ticketing 3 2 4

Prerequisites: TAT 112
Corequisites: None

This course introduces the basics of international travel documentation and procedures. Topics include creating international airline reservations, entry/exit requirements, currencies, industry codes, customs regulations, and related international issues. Upon completion, students should be able to construct an international passenger name record using an airline computer reservation system and understand the intricacies of international travel. System One/Amadeus Certification texts/training materials will be the focus of the instruction process including the introduction of the internet as a research tool.

TAT 116 World Destinations I 3 0 3

Prerequisites:
Corequisites: None

This course covers travel and tourism in the western hemisphere. Emphasis is placed on location and cultural and physical geography as it relates to destination planning. Upon completion, students should be able to counsel clients regarding western hemisphere destinations to meet identified expectations.

TAT 118 World Destinations II 3 0 3

Prerequisites:
Corequisites: None

This course covers travel and tourism in Europe. Emphasis is placed on location and cultural and physical geography as it relates to destination planning. Upon completion, students should be able to counsel clients regarding European destinations to meet identified expectations.

TAT 120 World Destinations III 3 0 3

Prerequisites:
Corequisites: None

This course covers travel and tourism in the Pacific, Asia, and Africa. Emphasis is placed on location and cultural and physical geography as it relates to destination planning. Upon completion, students should be able to counsel clients regarding Pacific, Asian, and African destinations to meet identified expectations.

TAT 122 Cars, Rails and Rooms 3 2 4

Prerequisites: TAT 112
Corequisites: None

This course covers land-based travel arrangements for domestic and international corporate and leisure travelers. Emphasis is placed on making non-airline travel arrangements that include accommodations, rental cars, and rail transportation. Upon completion, students should be able to generate manual and automated reservations. System One/Amadeus Certification texts/training materials will be the focus of the instruction process including the introduction of the internet as a research tool.

TAT 210 Travel Sales and Marketing 4 0 4

Prerequisites: TAT 110
Corequisites: None

This course introduces various marketing strategies as they relate to entities within the travel and tourism industry. Topics include basic marketing tools such as market research, market planning, advertising, customer service, image building, and sales techniques. Upon completion, students should be able to conduct primary research, develop a marketing plan, understand the role of service as a marketing tool, and demonstrate proficient sales techniques.

TAT 212 Cruise Marketing and Sales 3 0 3

Prerequisites:
Corequisites: None

This course is designed to develop a thorough knowledge of the cruise product. Emphasis is placed on worldwide destination markets, the "cruise experience," differences within the cruise products, and how to use cruise brochures as a sales tool. Upon completion, students should be able to maximize agency profit potential by matching cruise products with identified client needs.

TAT 214 Tour Planning and Escorting 3 0 3

Prerequisites:
Corequisites: None

This course is designed to develop a thorough knowledge of the tour industry, including career opportunities. Topics include pre-packaged and custom-designed tours, comparison of tour products, itinerary planning, cost and pricing, and the role of a tour escort. Upon completion, students should be able to identify types of tours, analyze tour features and benefits, negotiate with suppliers, and understand the function of tour escorting.

TAT 220 Travel Agency Management 3 0 3

Prerequisites:
Corequisites: None

This course covers the primary areas of travel agency operation. Emphasis is placed on budgeting, personnel, leases, customer service, accounting, supplier relationships, pricing strategies, policy and procedures, and requirements for agency approval. Upon completion, students should be able to understand the fundamental areas within travel agency operations, industry trends, and ethical business practices.

TNE - Telecommunications

	Lecture	Lab	Clinic	Credit
TNE 111 Campus Networks I	2	3	0	3

Prerequisites: None
Corequisites: None

This course is designed to introduce the fundamentals of data/computer networks. Topics include an overview of data communication standards, protocols, equipment, and how they are integrating into network topologies and systems. Upon completion, students should be able to demonstrate an understanding of telecommunication and networking.

TNE 121 Campus Networks II 3 3 0 4

Prerequisites: TNE 111
Corequisites: None
This course covers the operating systems and topologies associated with networking. Topics include the various operating systems used in networking and the topologies explained on a network to network level. Upon completion, students should be able to use and explain operating systems and topologies.

TNE 193 Selected Topics in Telecom 1-3 0-6 0 3

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

TNE 231 Data Comm over WAN 3 3 0 4

Prerequisites: TNE 111
Corequisites: None
This course is designed to introduce wide area networking. Topics include LAN-to-LAN, LAN-to-host, LAN-to-WAN connectivity, X.25 protocol, packet switching networks, and network topologies explained on a WAN basis. Upon completion, students should be able to demonstrate an understanding of wide area networking.

TNE 241 Data Network Troubleshooting 2 3 0 3

Prerequisites: None
Corequisites: None
This course introduces theory and provides experience in analyzing and troubleshooting telecommunication network systems. Topics include physical issues, software debugging, viruses, e-mail, traffic management, server and router configuration, documentation, and equipment use. Upon completion, students should be able to identify and resolve telecommunication network problems.

TNE 242 Data Network Design 2 3 0 3

Prerequisites: None
Corequisites: None
This course covers the principles of the design of LAN and WAN hierarchy through the terminal. Topics include OSI model, static and dynamic addressing, network terminal management, bandwidth requirements, Internet requirements, redundancy, and broadband versus baseband systems. Upon completion, students should be able to design a hierarchical system to board design.

TNE 250 Telecom Networks 2 3 0 3

Prerequisites: TNE 111
Corequisites: None
This course introduces the principal elements and theory (both analog and digital) of telecommunication networking systems. Topics include system network overview, subscriber loops, network testing and measurement, wiring, network transmission techniques synchronization and analysis, switching and signaling, and related applications. Upon completion, students should be able to demonstrate knowledge of the concepts associated with telecommunication network systems.

TNE 251 Advanced Telecom Networks 2 3 0 3

Prerequisites: TNE 250
Corequisites: None
This course is a continuation of TNE 250 and introduces advanced concepts associated with telecommunication network systems. Topics include waveform coding, emerging transmission techniques and analysis, advanced switching system architectures, personal communication systems, and related topics and applications. Upon completion, students should be able to demonstrate knowledge of the concepts associated with advanced telecommunication network systems.

TNE 261 Internet Development 2 3 0 3

Prerequisites: TNE 111
Corequisites: None
This course is designed to introduce Internet concepts. Topics include Internet layer operation, IP routing and addresses and operations, TCP-IP operations and ports, firewalls, gateways, e-mail, and web-site development. Upon completion, students should be able to demonstrate an understanding of the course concepts.

TNE 293 Selected Topics in Telecom 1-3 0-6 0 3

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

TRF - Turfgrass Management

Also see HOR – Horticulture Technology and COE Cooperative Education for additional course descriptions.

	Lecture	Lab	Credit
TRF 110 Introduction Turfgrass Culture and Identification	3	2	4

Prerequisites:
Corequisites: None
This course provides an in-depth study of turfgrass. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species through characteristics and reproductive stages and develop an establishment and maintenance plan for high quality turf areas.

TRF 120 Turfgrass Irrigation & Design 2 4 4

Prerequisites: None
Corequisites: None
This course covers the basic techniques involved in the design, layout, installation, and use of turfgrass irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system.

TRF 152 Landscape Maintenance 2 2 3

Prerequisites:
Corequisites: None

This course introduces the tasks of landscape maintenance. Emphasis is placed on lawns, shrubs, trees, flowers, and ground covers. Upon completion, students should be able to maintain a landscape area on a year-round schedule.

TRF 210 Turfgrass Equipment Management 1 4 3

Prerequisites: None
Corequisites: None

This course covers the operation and maintenance of specialized turfgrass management equipment. Topics include small engine use and repair; operation, maintenance, and repair of turfgrass management equipment; orgainzation of shop areas; and safety considerations. Upon completion, students should be able to operate and maintain turfgrass management equipment.

TRF 220 Turfgrass Calculations 2 0 2

Prerequisites: None
Corequisites: None

This course introduces the specific math concepts and calculations necessary in the turfgrass industry. Emphasis is placed on calibration of equipment used in the application of fertilizers and pesticides and calculation of solid materials used in construction. Upon completion, students should be able to correctly perform basic calculations and calibrations and estimate materials needed in specific professional turfgrass management situations.

TRF 230 Turfgrass Management Applications 1 2 2

Prerequisites: None
Corequisites: None

This course introduces specific sports field design, installation, and maintenance. Topics include natural grass croquet courts and baseball, soccer, and football fields. Upon completion, students should be able to perform specific tasks in layout, field marking, and preparing for tournament play.

TRF 250 Golf/Sport Field Construction 2 4 4

Prerequisites: None
Corequisites: None

This course provides information for layout, materials, and construction of special recreation applications. Emphasis is placed on site selection, equipment, safety regulations, drainage, turfgrass species, and irrigation needs. Upon completion, students should be able to locate construction reference sites and develop drainage and irrigation plans from their own blueprints and topo map designs.

TRF 260 Advanced Turfgrass Management 3 2 4

Prerequisites: TRF* 110
Corequisites: None

This course covers the principles and practices involved in turfgrass management. Topics include choosing the best management practice in mowing, pest control, fertilization, irrigation, traffic control, air control, budgeting, and materials procurement. Upon completion, students should be able to demonstrate knowledge of the principles covered and select and apply the best practices in turfgrass management.

WLD - Welding

Lecture Lab Credit

WLD 110 Cutting Processes 1 3 2

Prerequisites:
Corequisites: None

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

WLD 111 Oxy-Fuel Welding 1 3 2

Prerequisites:
Corequisites: None

This course introduces the oxy-fuel welding process. Topics include safety, proper equipment setup, and operation of oxy-fuel welding equipment with emphasis on bead application, profile, and discontinuities. Upon completion, students should be able to oxy-fuel weld fillets and grooves on plate and pipe in various positions.

WLD 112 Basic Welding Processes 1 3 2

Prerequisites:
Corequisites: None

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115 Shielded Metal Arc Welding (SMAW) (Stick) Plate 2 9 5

Prerequisites:
Corequisites: None

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with shielded metal arc welding electrodes. Upon completion, students should be able to perform shielded metal arc welding fillet and groove welds on carbon plate with prescribed electrodes.

WLD 116 Shielded Metal Arc Welding (SMAW) (Stick) Plate/Pipe 1 9 4

Prerequisites: WLD 110, WLD 115
Corequisites: None

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with shielded metal arc welding electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

WLD 121 Gas Metal Arc Welding (GMAW) (MIG) FCAW/Plate 2 6 4

Prerequisites:
Corequisites: None

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD 122 Gas Tungsten Arc Welding (GTAW) (MIG) Plate/Pipe 1 6 3

Prerequisites: WLD 110, WLD 121
Corequisites: None

This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.

WLD 131 Gas Tungsten Arc Welding (GTAW) (TIG) Plate 2 6 4

Prerequisites:
Corequisites: None

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

WLD 132 Gas Tungsten Arc Welding (GTAW) (TIG) Plate/Pipe 1 6 3

Prerequisites: WLD 110, WLD 131
Corequisites: None

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

WLD 141 Symbols & Specifications 2 2 3

Prerequisites:
Corequisites: None

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 143 Welding Metallurgy 1 2 2

Prerequisites: None
Corequisites: None

This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

WLD 145 Thermoplastic Welding 1 3 2

Prerequisites:
Corequisites: None

This course introduces the thermoplastic welding processes and materials identification. Topics include filler material selection, identification, joint design, and equipment setup with emphasis on bead types and applications. Upon completion, students should be able to perform fillet and groove welds using thermoplastic materials.

WLD 151 Fabrication I 2 6 4

Prerequisites: WLD 110, WLD 115, WLD 116, WLD 131, and WLD 141
Corequisites: None

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

WLD 215 SMAW (Stick) Pipe 1 9 4

Prerequisites: WLD 110, WLD 115, or WLD 116
Corequisites: None

This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions. Upon successful completion of all welding courses in the Welding diploma program and the Welding Technology program, the student in the last semester will be allowed to take an A.W.S. D1.1 Structural Welding Code Test on Mild Steel Pipe in the 6-G position, for a nominal fee, within this course.

WLD 221 Gas GMAW (MIG) Pipe 1 6 3

Prerequisites: WLD 110, WLD 122
Corequisites: None

This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform GMAW welds to applicable codes on pipe with prescribed electrodes in various positions.

WLD 231 Gas Tungsten Arc Welding (GTAW) (TIG) Pipe 1 6 3

Prerequisites: WLD 110, WLD 132
Corequisites: None

This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

WLD 251 Fabrication II 1 6 3

Prerequisites: WLD 151
Corequisites: None

This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

WLD 261 Certification Practices 1 3 2

Prerequisites: WLD 110, WLD 115, WLD 121, WLD 131, and WLD 141
Corequisites: WLD 116

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes. Successful completion of prerequisite courses allows students in the Welding Technology Program to take weld tests in accordance with

AWS QC 10, and/or AWS D1.1, and/or AWS B2.1.

WLD 262 Inspection and Testing 2 2 3

Prerequisites: WLD 110, WLD 115, WLD 121, WLD 131, WLD 141

Corequisites: WLD 116

This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

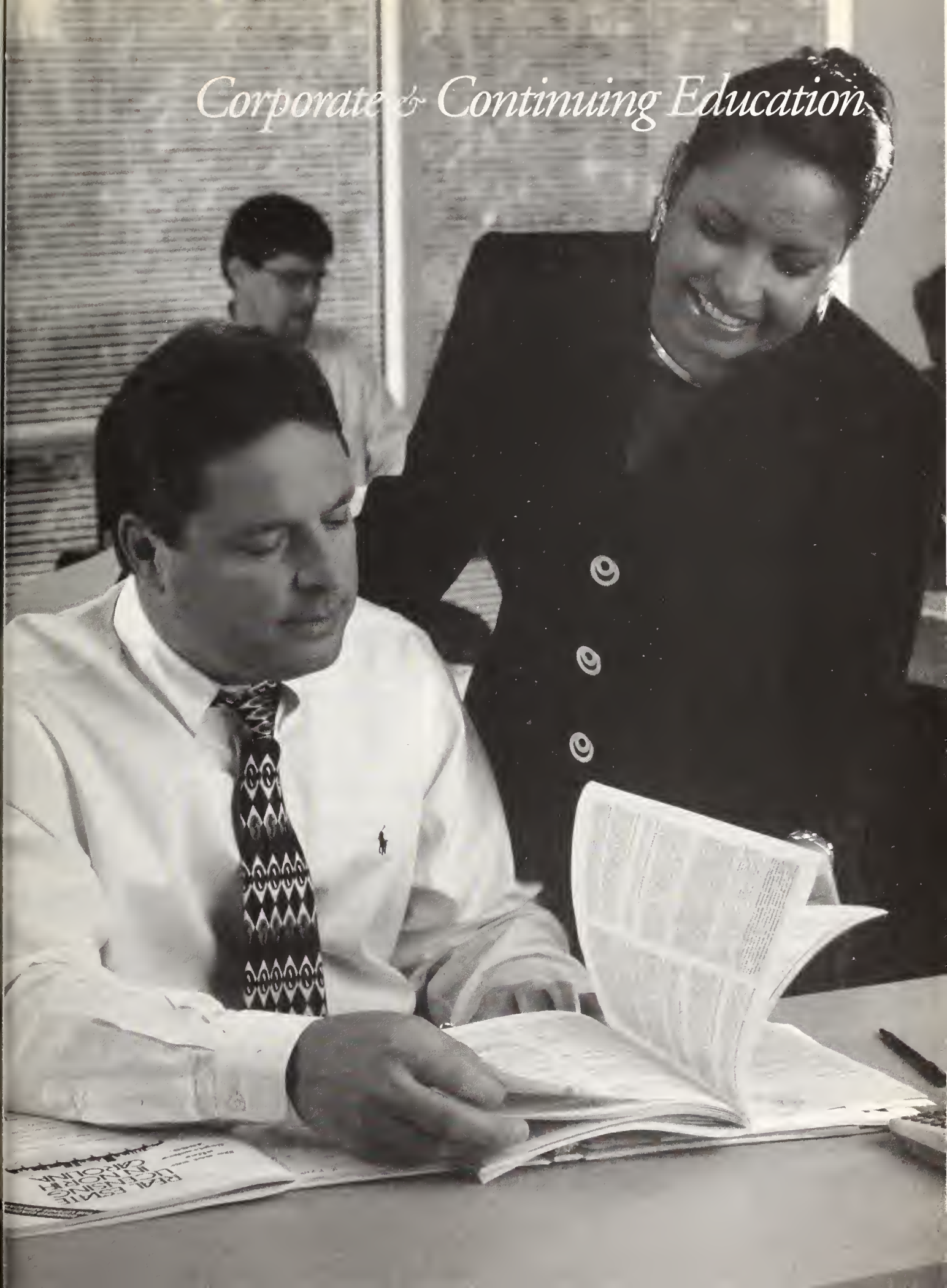
WLD 265 Automated Welding/Cutting 2 6 4

Prerequisites: CIS 110, WLD 110 and WLD 121

Corequisites: None

This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.

Corporate & Continuing Education



Corporate and Continuing Education

(704) 330-4223

http://www.cpcctraining.org

Build a balance in your life through professional and personal growth.

Today's competitive business environment requires that organizations employ a highly skilled and productive workforce. Corporate and Continuing Education provides courses and programs that are either customized for a specific business or industry's work force; or targeted to an individual's career attainment, upgrade, or enrichment

Working with CPCC's extensive network of instructors and training facilities throughout Mecklenburg County, Corporate and Continuing Education (CCE) can tailor course parameters, content, and duration to meet the specific needs and goals of an organization at a reasonable cost. CCE can also send instructors to a company's facility anywhere in Mecklenburg County. The courses and programs offered by Corporate and Continuing Education often lead to a professional designation, continuing education credits, or certification. The use of pre- and post-assessment tools allows CCE to maximize product offerings to meet specific training needs. The end result is a highly skilled staff to help build a company's competitive advantage.

Corporate and Continuing Education also offers programs that foster civic, cultural, and personal enrichment within the Charlotte-Mecklenburg area. Personal Interests courses offered at convenient times and locations, give adults the opportunity to explore and develop new interests or hobbies. By utilizing the resources of the college and community, these programs help improve and enhance the lives of individuals.

Explore the following course offerings to determine how CCE can meet your needs.

Program Areas & Courses

COMPUTER TRAINING (704) 330-4223

Computer courses are designed for all levels of proficiency from the novice to the networking professional. Our introductory classes help students lose their fear of the microcosm, while our advanced classes help prepare students to become IT professionals or to gain industry certifications. Classes are primarily taught by those with industry experience to make course material more relevant.

On-line Computer Training

- Desktop Applications
- Operating Systems
- Networking
- Programming

AutoCad

- Premier Autodesk Authorized Training Center
- AutoCAD
- 3D Studio MAX
- 3D StudioVIZ
- AutoLISP
- AutoCAD Map
- AutoDesk World
- Mechanical Desktop
- Softdesk
- Architectural Desktop
- Land Development Desktop
- Actrix Technical

Desktop Applications

- MS Office (2000)
- Windows 98
- MS Works
- MS Exchange
- Internet
- Outlook (97, 98 and 2000)

Networking and Hardware

- Microsoft Certified Systems Engineer
- A+ Certification
- DOS
- Linux
- Cisco
- NET+
- INET+

Database Administrator

- Microsoft Certified Database Administrator (MCDBA)
- Oracle

Web Development

- Web Design
- FrontPage
- HTML
- XML
- Certified Internet Webmaster (CIW)
- Macromedia Dreamweaver
- Macromedia Flash
- Macromedia Fireworks
- Javascript
- Coldfusion

Programming

- Visual Basic
- JAVA
- C/C+

Desktop Publishing

- Macintosh
- Corel Draw

- Adobe Illustrator
- Adobe Page Maker
- Adobe Photoshop
- QuarkXpress

CONSTRUCTION INSTITUTE

Apprenticeship Training (704) 330-4452

- Electrical
- Fire Sprinkler Fitter
- Plumbing

Building Contractor Licensing (704) 330-4408

- Building/Commercial Contractors Exam Review
- Home Construction Methods and Details
- Residential Blueprint Reading and Estimating
- Residential Contractors Exam Review

Building Trade Skills (704) 330-4408

- Brick Masonry

A critical shortage of brick masons exists in Charlotte. This one semester course provides full-time attendees the skills to become an apprentice brick mason with a chance to advance. Graduates are assisted in finding full-time employment.

- Residential Framing: This six-month, full-time program trains participants to perform all of the skilled tasks necessary to erect wood frame dwelling and it is free! With the assistance of local builders, students are provided registration fees, textbooks and a free set of hand tools. Much of the training is in the field so participants receive lots of practical, hands-on training experience. Graduates find employment in Charlotteíss booming residential construction industry.
- Carpentry I,II,III,IV,
- Vinyl siding
- Installation
- Plumbing

Electrical Code Courses (704) 330-4452

- Electrical Contractor / Journeyman Licensure

Home Inspection Licensing and Continuing Education

HEALTH AND COMMUNITY SERVICES (704) 330-6162

- Advanced Life Support
- Advanced Cardiac Life Support (ACLS)
- Advanced Cardiac Life Support – Instructor
- Pediatric Advanced Life Support (PALS)
- Pediatric Advance Life Support – Instructor
- Neonatal Resuscitation Program (NRP)
- Neonatal Resuscitation – Instructor

Allied Health

- Medical Terminology
- Medical Keyboarding
- Medical Receptionist
- Hospital Nursing Secretary
- Medical Reimbursement Specialist
- Medical Transcription
- Phlebotomy
- Pharmacy Technology
- Sleep Technology
- Activity Director for Nursing Homes/Assisted Living
- Assisted Living Administrator Training
- Optometric Tech

CPR/First Aid

- CPR
- CPR Instructor
- First Aid

Dental

- Coronal Polishing for Dental Assistants II
- Radiology for Dental Assistants

Certified Dietary Managers Program

- Unit I-Food Systems Management
- Unit II - Therapeutic Nutrition
- Unit III - ServSafe

Emergency Medical Technician

Paramedic Program

Environmental Health and Safety

- CFC
- Wastewater Treatment
- OSHA Training

Nursing Care

- Nurse Aide I
- Nurse Aide II
- Nurse Aide I Competency Evaluation
- RN Refresher

INSURANCE (704) 330-4681, 4689 or 4678

Pre-licensing courses are offered for persons seeking licensure requirements with the North Carolina Department of Insurance and the National Association of Security Dealers (NASD). New continuing education courses approved by the Department of Insurance are offered annually. Licensees cannot repeat a course more than once every three years.

- Life and Health Agent

- Medicare Supplement/Long Term Care
- Property and Liability Agent
- Claims Adjuster
- Series 6, 63, and 7

KIDS' COLLEGE
(704) 330-4223

- Academics
- Art / Drama
- Computers
- Hobbies
- Personal Growth
- Sports

LANGUAGE AND CULTURE
(704) 330-4223

Continuing Education language courses are designed with a communicative approach strongly emphasizing listening and speaking skills. Beginning courses are offered in three levels: Level I requires little or no prior knowledge of the language; Level II requires communication in short sentences or phrases; Level III requires basic conversational skills. Intermediate courses are designed to be taught in the target language with little or no conversation in English.

- French: Beginning I, II, or III; Intermediate French
- German: Beginning I, II or III; Intermediate German
- Italian: Beginning I, II or III; Intermediate Italian I or II
- Spanish: Beginning I, II or III; Intermediate Spanish I or II
- Spanish: Basic Spanish for the Healthcare Professional
- Spanish: Spanish for the Construction Industry
- Beginning Russian
- Beginning Chinese
- Beginning Arabic

Customized language training for corporate training is also available through consultation. CPCC's Corporate & Continuing Education is an Official Registered Provider of Command Spanish. Contact (704) 330-4654.

LIFELONG LEARNING FOR SENIORS ADULTS
(704) 330-4223

- Art
- Computer Skills
- Cultural Arts
- Financial Planning
- Health and Fitness
- Home & Garden
- Lunch & Learn Series
- Professional Development
- Workshops
- Writing Enrichment

MANAGEMENT, LEADERSHIP, AND PROFESSIONAL DEVELOPMENT
(704) 330-4661

These professional development courses provide workforce education and training to address specific skill areas. Our customer-driven and learning-centered approach focuses on developing and enhancing professional skills needed in todayíss diverse and fast-paced business environment. Business and Management offerings are customizable for delivery to businesses and organizations per consultation.

Assessments
(704) 330-4662

Assessments include a family of soft skill assessment instruments that use job simulations to measure skills and abilities required for job success. Some assessments use video to simulate job activities for positions within an organization from entry level personnel to supervisors and managers. These assessments are available:

- Production Workers
- Front Line Leaders
- Management
- Customer Service

Business and Management
(704) 330-4223

These professional development courses are designed to provide skill-building strategies in specific areas of interest.

- Business Etiquette
- Making the Transition to Management
- Presentation Success
- Getting Things Done – Managing Time
- Managing Projects for Results
- Communication Power Tools
- Professional Telephone Techniques
- Listening: Did You Say What I Heard?
- Assertiveness Without Fear
- Dealing with Conflict and Negotiation
- Anger Management
- Increasing Self-Understanding with Myers Briggs
- Punctuation and Grammar
- Business Writing
- The Basics of Proposal Development
- Problem Solving

Certifications
(704) 330-4666

The following Continuing Education certifications are offered:

- Career Development Facilitator Modules I – IV
- Certified Management Accountant Review (CMA)

The CMA is an internationally recognized designation awarded to management accountants who successfully complete the CMA examination as well as various education and experience requirements. Since 1972, over 18,000 accountants have achieved CMA certification. To achieve certification you will need a combination of education, experience, coursework and passing scores on each of four exams. CPAs can waive Module 2.

- Module 1: Economics, Finance and Management
- Module 2: Financial Accounting and Reporting
- Module 3: Managing, Reporting and Analyzing
- Module 4: Decision Analysis & Information Systems

Certified Payroll Professional

CPP Review courses are designed for payroll professionals who want to study for the CPP exam. It is necessary to have at least 3 years payroll experience to become certified.

- Primary Payroll Skills
- Essential Payroll Skills

Advanced Payroll Skills

Human Resources Certification (CPCC)

These courses have been determined as essential topics for entry into the field of Human Resources:

- Fundamentals of Human Resources
- Basic Employment Law
- Employee Relations
- Benefits Administration
- Sexual Harassment Workshop
- Responding to an EEO Charge
- Comparing and Contrasting Current HR Laws
- Professional Ethics

Project Management Certification (CPCC)

This in-depth project management course is designed to provide the skills and experience needed to successfully manage projects from initiation to completion. Specific course topics include targeting end objectives, project staffing, the 9 skills of successful project management, project time management, project quality management, project accounting, advanced project management tools.

SHRM

This pre-certification course is designed for those interested in obtaining their PHR or SPHR certification in Human Resources.

Volunteer Management

This course is designed to assist those interested in earning credits toward a Certification in Volunteer Administration. Participants learn the knowledge, skills and abilities required of volunteer coordinators and administrators as well as the standard management functions of planning, organizing, staffing, directing, controlling and more.

By Contract: (704) 330-4661

- Achieve Global (Zenger/Miller)
- Working
- Front Line Leadership
- Leadership 2000
- Workplace Basic Skills
- Sales
- Customer Service (Kaset)

Developmental Dimensions International (DDI)

- Leadership Development
- Techniques for High Performance
- Service Plus

Notary Public (704) 330-4223

Notary Public classes provide a thorough introduction to the statutes that regulate the acts of North Carolina Notaries. The purpose of the education requirement is to enable the applicant to become a responsible, qualified candidate for Notary Public commission.

MANUFACTURING AND TECHNICAL SKILLS (704) 330-4413 or 4412

Customized Blueprint Reading and Quality Inspection Training, Welding, Shop Math, CNC Programming and Operations, Maintenance Training, Shop Practices, and Operations Management, Statistical Process Control, Problem Solving Techniques, Data Collection and Analysis, Improvement Team Methodologies

NEW & EXPANDING INDUSTRY (704) 330-4674

This program provides complete training services for eligible new and expanding industries in a special state-supported format. Typically, the services provided are based on the number of new jobs created, their skill and wage levels and the level of capital investment. Services are made available to companies that create 12 or more new production jobs in any one community in North Carolina during a one-year period. Training services provided may include instructors and training program development, customized video training programs and pre-employment programs.

SPECIAL TRAINING SERVICES (704) 330-4674

Focused Industrial Training is available for existing local manufacturing companies to assist and provide specialized training in an affordable manner. This is a state program that offers needs assessments, customized industrial-related training and safety training to small groups of workers.

REAL ESTATE/APPRAISAL/MORTGAGE LOAN PROCESSING (704) 330-4681 or 4678

The Real Estate program offers several courses including pre-licensing education courses designed by the North Carolina Real Estate Commission and the North Carolina Appraisal Board. The following courses are included within the program:

Appraisal

- Introduction to Real Estate Appraisal (R-1)
- Valuation Principles and Practices (R-2)
- Applied Residential Property Valuation (R-3)
- Introduction to Income Property Appraisal (G-1)
- Advanced Income Capitalization Procedures (G-2)

Mortgage Loan Processing

- Becoming a Mortgage Loan Processor

- Advanced Mortgage Loan Processing

Pre-licensing/Sales

- Fundamentals of Real Estate (Salesperson)
- 60-Hour Real Estate Broker Course
- Mandatory Real Estate Update
- Red Flags, Property Inspection Guide
- Doing the Right Thing
- Maximizing Value
- Challenging the Appraisal
- Risk Management
- Environmental Considerations in Real Estate
- Introduction to Commercial Real Estate
- Fair Housing
- Tell Me Now/Pay Me Later
- What Does an Attorney Do?

Additional Offerings:

- Real Estate Review
- Real Estate Property Management (Basic)

PERSONAL INTERESTS (704) 330-4223

- Airplane Piloting
- Art
- Stained Glass
- Drawing
- Watercolor
- Oil/Acrylic
- Cooking
- Cake Decorating
- Chinese Cooking
- Low-Fat Cooking
- Dance
- Shag
- Country Line Dancing
- Ballroom Dancing
- Financial Planning
- Basics of Investing
- Financial Planning
- How to Live Debt Free
- Gardening
- Interior Decorating
- Interior Decorating I & II
- Faux Finish
- Nautical
- Sewing
- Sewing I & II
- Quilting
- Upholstery
- Recreation
- Tai Chi
- NIA Fitness
- Golf
- Yoga
- Bridge
- Tennis
- Self-defense
- Motorcycle Riding and Street Skills
- Aerobics
- Kayaking
- Canoeing

Woodworking (704) 330-6491

- Beginning Woodworking Combination
- Intermediate Woodworking Combination
- Writer's Series
- Creative Writing
- Freelance Journalism
- Freeing Your Creative Self
- Marketing for Writers
- Writing Memoirs
- Writing Our Way to Abundance

SMALL BUSINESS CENTER (704) 330-4651, 4672 or 4673

Member of the North Carolina Small Business Center Network whose vision is to foster and support entrepreneurship, small business training and economic development in local communities.

Training and services offered:

- Business Basics of Starting and Operating a Small Business
- Financial Management and Record-keeping for the Small Business
- Working On Your Business, Not In It
- Getting Started With QuickBooks® Pro
- Mastering Payroll With QuickBooks® Pro
- Mastering Estimating, Time Tracking & Job Costing With QuickBooks® Pro
- Mastering Taxes – Sales & Other-wise With QuickBooks® Pro
- Mastering Inventory & Purchase Orders With QuickBooks® Pro
- Mastering On-line Banking With QuickBooksÆ Pro
- Export Ready Training
- International Payments
- BEST – Business and Entrepreneurial Skills Training
- Free Library Seminars – for those who want to start a business
- Resource Center – lending library, periodicals, templates, audio & video
- Individual Small Business Consulting and Counseling

Offered in Spanish:

- Fundamentos De Comenzar Y Operar Un Negocio Pequeno
- Free Library Seminars ñ for those who want to start a business

SMALL ENGINE/AUTOMOTIVE (704) 330-6220

- Small Engine/Automotive
- Automotive Restoration
- Basic Car Maintenance

- Basic Auto Technology for Service Consultants
- Auto Shop Management for Service Consultants
- Automotive Servicing for Service Consultants
- Automotive Computer Applications for Service Consultants

North Carolina Safety and Emissions Inspection Certification (704) 330-5480

- Safety and Inspection Initial Certification
- Emissions Inspection Initial Certification
- Safety Inspection Re-certification
- Emissions Inspection Re-certification.

Small Engine Repair Skills (704) 330-6220

- Small Engine Repair
- Small Engine Overhaul

TEACHER EDUCATION (704) 330-4223

These courses are designed to provide Continuing Education Units for North Carolina teachers. Teachers not currently employed by a school district should contact the State Department of Public Instruction for a renewal information packet. Content area courses are offered as well as technology courses to assist teachers in obtaining technology units for renewing certificates. Classes listed are selected examples of course offerings; this list is not intended to be exhaustive. Some courses are offered more frequently than others depending on expressed needs of the local educational professionals. New courses may be added during any given semester.

Content Area Courses:

- Effective Teaching
- Classroom Management Strategies
- Discipline with Dignity
- Discipline Strategies: As Tough as Necessary
- Becoming a Successful and Effective Teacher
- Strategies for Improving Academic Performance
- Instructional Strategies for Block Scheduling
- Introduction to Attention Deficit Disorder
- Motivating Students
- Stress Management
- Accelerated Learning
- Cooperative Learning
- Learning Centers in the Classroom
- Learning Styles and Unit Plans
- Brain Based Learning and Teaching
- Introduction to Multiple Intelligences
- Using Multiple Intelligences in Lesson Design
- Differentiating Instruction in Mixed Ability Classrooms
- Critical and Creative Thinking Skills
- Planning Integrated Curriculum
- Current Childreníss Literature
- Author/Illustrator Studies
- Theme-based Units
- Grant Writing for Educators
- Spanish for Educators (and others)

Technology Courses:

- Introduction to Windows 98
- Introduction to Microsoft Works
- Utilizing Gradebook and Test Template in Microsoft Works
- Applications for Spreadsheets for Educators
- Applications for Databases for Educators
- Microsoft Word for Teachers
- Introduction to Excel
- Introduction to PowerPoint
- Introduction to Microsoft Publisher
- Internet for Teachers
- Integrating the Internet into Language Arts and Social Studies Curriculum
- Integrating the Internet into Science and Math Curriculum
- Introduction to FrontPage 98(and others)

For information about offering Teacher Education courses on-site for local schools, contact 330-4654.

WORKPLACE BASIC SKILLS (704) 330-6714

- Math Upgrading
- Reading Improvement
- General Educational Development (GED) Preparation
- Writing Improvement
- Upgrading Your Grammar
- English As A Second Language (ESL) – Beginning, Intermediate, and Advanced
- Math For ESL Students
- Citizenship.



Accountability Measures 1999-2000



The NCCCS Enhanced Accountability Measures 1999-2000

In January 1999, the North Carolina Community College System responded to the special provision in Senate Bill 1366, Section 10.5. The following report indicates how CPCC performed on the new accountability measures during this first pilot year.

1. Progress of basic skills students

Benchmark: 75% of Basic Skills students will progress within the level, complete the level, advance to the next level, or enter curriculum courses or occupational extension courses.

94% of Central Piedmont's 10,741 literacy students progressed, completed or advanced.

2. Performance of college transfer students

Benchmark: 84% attaining an overall GPA of 2.0 or higher after completing one academic year at the public university.

73.1 % of the transfer students from CPCC were in good standing after transfer to the institutions of the University of North Carolina.

3. Passing rates for licensure and certification examinations

Benchmark: An aggregate institutional passing rate of 80% for all first-time test-takers plus no passing rate falling below 70% for any single exam.

Test	*#Tested*	*%Passed*
Basic Law Enforcement	19	95%
Dental Hygiene	31	97%
EMT	108	80%
EMT-D	77	96%
EMT-P	15	100%
Insurance-Life and Health	120	70%
Insurance-Property and Liability	100	57%
Insurance-Medicare Supplement	15	67%
Physical Therapy Assistant	22	82%
Real Estate-Broker	26	62%
Real Estate-Sales	227	54%
Registered Nursing	44	82%

4. Passing rates of students in developmental course

Benchmark: 70% passing rate for all developmental courses.

For Fall Semester 1999, 73.6% of the 3,370 students who completed developmental English, math, and reading received a grade of A, B, or C.

5. Success rate of developmental students in subsequent college-level courses

Benchmark: No significant difference in the college level course grades between those students who pass at least one developmental course and those who did not take developmental studies.

Two cohorts were identified for each course from the fall of 1998 and following for one year. The following cohorts were compared:

Those who did/did not take ENG 090 and their grades in ENG 111

Those who did/did not take MAT 090 and their grades in MAT 161

Those who did/did not take RED 090 and their grades in intro level sociology, psychology, history or political science (12 courses will count.)

When the cohorts were compared it was found that:

No difference occurred in grades made in college-level English between those who took developmental English and those who did not.

No difference occurred in grades made in college-level Math between those who took developmental Math and those who did not.

A significant difference did occur in grades made in college-level Social Sciences between those who took developmental reading and those who did not.

6. Program enrollment

Benchmark is set at an average of 10 students over a three-year period for all programs.

Using the two years of data the college has since converting to the semester system, the following programs have less than ten students averaged over 2 years:

A25400/C25420 Real Estate (Curriculum program phased out)

A50160 Environmental Health and Safety (Program phased out)

C45220 Cytotechnology (Program only admits 5 per year)

7. Student satisfaction of program completers and non-completers

Benchmark: 85% of the combined respondents will report being satisfied with the quality of the college's programs and services.

Of the 246 students who were surveyed, 85.7% were satisfied with CPCC's programs and services.

8. Goal completion of program completers

Benchmark: 90% of program completers will report goal completion.

96.8% said they partially or completely met their goals for attending CPCC.

9. Curriculum student progress and success

Benchmark: 80% of students from a given cohort will complete a curriculum program with a certificate, diploma, or degree; continue enrollment; or report via a survey that they have met their primary goal for attending.

96% of the cohort either graduated, continued to enroll or met their goals in attending CPCC.

10. Employer satisfaction with graduates

Benchmark: 85% of employers will report being satisfied with the preparation of CPCC graduates.

86% of employers of graduates reported that CPCC graduates were equally if not better prepared than graduates of similar programs. 100% said they would hire another CPCC graduate.

11. Employment status of graduates

Benchmark set was that 90% of students will be employed.

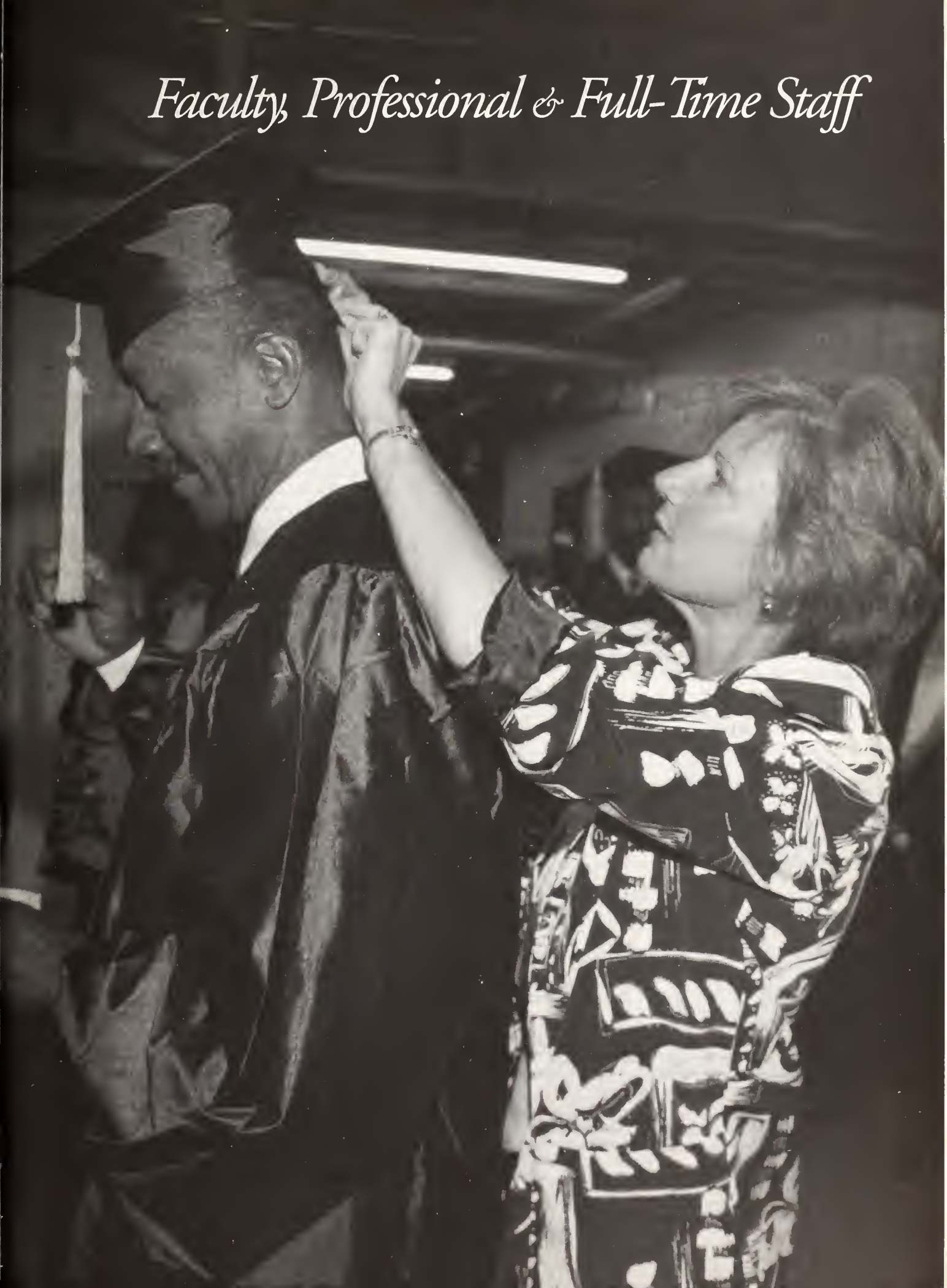
95.9% of those intending to be employed were employed full or part-time.

12. Client satisfaction with customized training

Benchmark: 85% of employers participating in the New and Expanding Industries Program will report being satisfied with the programs/services.

Twelve companies were involved in the New and Expanding Business and Industry Program over the past year. Five of those projects were completed with evaluation being done at completion. Of the five completed projects, 100% were satisfied with the program.

Faculty, Professional & Full-Time Staff



Faculty and Professional Staff
Full Time

ADAMS, FREDERICK P., Assistant Vice President for Operations
B.B.A., 1971 (Campbell College).

ADAMS, PAT, LD Counselor, Services for Students with disAbilities
B.A., 1977 (Bennett College); M.Ed., 1981 (Winthrop College).

ADAMS, PHIL, Instructor, Counselor
Career Advancement, Human Resources Development (HRD)
B.A., 1965 (Wofford College).

ADDISON, MARCIA, Acquisitions/Collection Development Librarian, Library Services
B.A., 1986 (Winthrop University); M.L.I.S., 1999 (University of South Carolina).

ALBANESE, J. MICHAEL, Instructor, Mathematics
B.S., 1975 (West Virginia Institute of Technology); M.M., 1977 (University of Tennessee). Additional graduate study at West Virginia University and West Virginia College of Graduate Studies.

ALBRIGHT, JUDY, Instructor, Accounting
B.S., 1971; M.A., 1972 (Appalachian State University).

ALLEN, JUDITH, Counselor, Counseling
B.A., 1994 (Queens College); M.Ed., 1998 (Winthrop University); Licensed Professional counselor.

ALVAREZ, JOSEPH ANTHONY, Instructor, English, Reading and Humanities
B.A., 1968; M.A., 1971 (University of Florida); B.S., 1981 (University of North Carolina at Charlotte).

AMBROSE, O. DONALD, Director, Distance Learning Services
A.B., 1964 (University of North Carolina at Chapel Hill); M.A., 1985 (Appalachian State University).

ANDERSON, BOB, Director of Auxiliary Services
B.A., 1970 (Valdosta State College). Additional study at Central Piedmont Community College.

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Glossary & Index

Glossary

The explanations below define words that are frequently used at Central Piedmont Community College.

Academic Advisor: A member of the faculty in a specified program who works with students in that program to help them reach their educational goals.

Academic Intervention: The status of students working for a degree, diploma, or certificate when their program GPA in any semester is below Standards of Progress required for the number of semester hours they attempted.

Academic Suspension: The status of students working for a degree, diploma, or certificate after they have been on Academic Intervention for two consecutive semesters of enrollment and their program GPA remains below Standards of Progress.

Advisement Week: A week each semester, prior to registration, when students are encouraged to meet with their faculty advisors and program counselors.

Advancement Studies Courses: Pre-college courses (identified with a beginning 0 digit) that prepare students for college-level courses.

Associate Degree: A document issued to a student signifying completion of a two-year curriculum/program.

Basic Studies: Pre-college courses that include Adult Basic Literacy Education (ABLE), Adult Basic Education (ABE), Adult High School Diploma (HSD), Advancement Studies courses, General Educational Development (GED), Limited English Proficiency, and Workplace Basic Education.

Business, Health, and Technology Programs: Certificate programs (less than one year), diploma programs (one year), and Associate in Applied Science Degree programs (two years or more). Some completed two-year degrees may transfer to four-year colleges or universities. Consult with a Faculty Advisor or Program Counselor regarding transferability.

Certificate: A document issued to a student signifying completion of a specific series of skills courses. A certificate curriculum/program is less than one year in length.

College Transfer Programs: The programs intended for transfer to senior institutions including the Associate in Arts, Associate in Science, and Associate in Fine Arts.

College Visitation Day: Usually held annually in November when representatives from many four-year colleges and universities, and representatives of the armed services are available to CPCC students to provide information.

Common Core Courses: Those courses that have been identified as part of a guaranteed transfer articulation with the University of North Carolina system.

Compressed Degree: An intense two-year evening program designed to offer the Associate in Arts degree in compressed form (8 week classes).

Continuing Education Unit (C.E.U.): A unit earned in courses offered through Corporate/Continuing Education.

Corequisite: A course that must be taken during the same term as the course that required the corequisite.

Corporate and Continuing Education: A division of CPCC that offers continuing education and extension courses for local businesses, for upgrading skills, or for personal enrichment. These courses have 7000-8000 numbers; some offer C.E.U.'s.

Course Description: A brief description of what is taught in the course and what the student should be able to do upon completion. Classroom hours, laboratory hours, clinic or co-Op hours, credits earned, and prerequisite/corequisite (if needed) are listed.

Credit: The number of units earned upon completing a curriculum course, measured in semester hours.

Curriculum (also called a Program): A set of courses designed to prepare a student either to enter the workforce immediately upon completion or to transfer to a degree program at a four-year college or university. Depending upon the length of the program, a degree, diploma, or certificate is awarded upon completion.

Diploma: A document issued to a student signifying completion of a one-year college curriculum program; also a document signifying completion of the Adult High School Diploma program.

Drop/Add: A period during registration when students may change their class schedules without penalty.
See Schedule Adjustment.

Elective Course: A course that the student may choose to take to meet diploma/degree requirements, as distinguished from required courses. Some electives are specified within areas, such as Technical Electives, Humanities/Art Electives; others are Free Electives.

Faculty Advisor: A member of the faculty in a program who is assigned as an advisor to students in that program to help them meet their educational goals.

Fall Break: A short break in mid-Fall semester when the College is open but classes are suspended.

Final Examination Week: A period of time at the end of each semester when instructors may schedule final examinations. The examination schedule is published with the Class Schedule so that students will know at the time of registration when the examination will be.

Full-Time Student: A student enrolled for 12 or more credits during fall and spring terms and for 9 or more credits during summer term.

General Education Courses: Those courses required in all degree programs, ensuring that graduates have the necessary general knowledge, abilities, and intellectual skills commensurate with their degrees.

Grade Point Average (GPA): The total number of grade points earned (A=4; B=3; C=2; D=1; F=0) divided by the total number of semester hours attempted.

In-State Student: A legal resident of North Carolina.

Lab Fee: An additional charge for some classes that have labs as part of the course structure. Lab fees are used exclusively by the division to purchase supplies and equipment for the lab to which the fees are applied.

Out-of-State Student: A legal resident of a state other than North Carolina, or a legal resident of a foreign country.

Part-Time Student: A student enrolled for fewer than 12 credits during fall and spring terms and for fewer than 9 credits during summer term.

Prerequisite: Any course that must be completed before enrolling in the course requiring the prerequisite.

Program: See Curriculum.

Program Description: Information about the program including the official definition, degree/diploma/certificate awarded, admissions processing, and a list of courses in that curriculum.

Program GPA: The grade point average of the courses that are required for completion of a program. To remain in good academic standing, students must maintain a program GPA in accord with the hours for which they enroll, as prescribed by the CPCC Grading Policy. Students must have a final program GPA of 2.0 (C) in order to graduate.

Schedule Adjustment: A time during the first week of each term when students may drop or add classes without penalty.

Semester Hour Credits (SHC):

- 16 contact hours classroom work equals 1 semester hour of credit.
- 32 or 48 contact hours of labortory work equals 1 semester hour of credit.
- 48 contact hours of clinical work equals 1 semester hour of credit.
- 160 contact hours of work experience equals 1 semester hour of credit.

Spring Break: A short break in mid-Spring semester when the College is open but classes are suspended.

Standards of Progress: Guidelines that are part of CPCC's Grading Policy and include requirements for students in degree, diploma, and certificate programs to maintain good academic standing. These standards include completion of courses, minimum program GPA, and minimum semester GPA. When students do not meet these standards, they are placed on Academic Intervention, or Academic Suspension and they work more closely with their Faculty Advisor or Program Counselor in order to reach their educational goals.

Transcript: A student's official academic record.

Transferability: The acceptability for credit of a course or program by another college or university.

Transfer Programs: See College Transfer Programs.

Tuition: The amount of money a student must pay at the time of registration for each hour of academic credit based on the student's residency classification.

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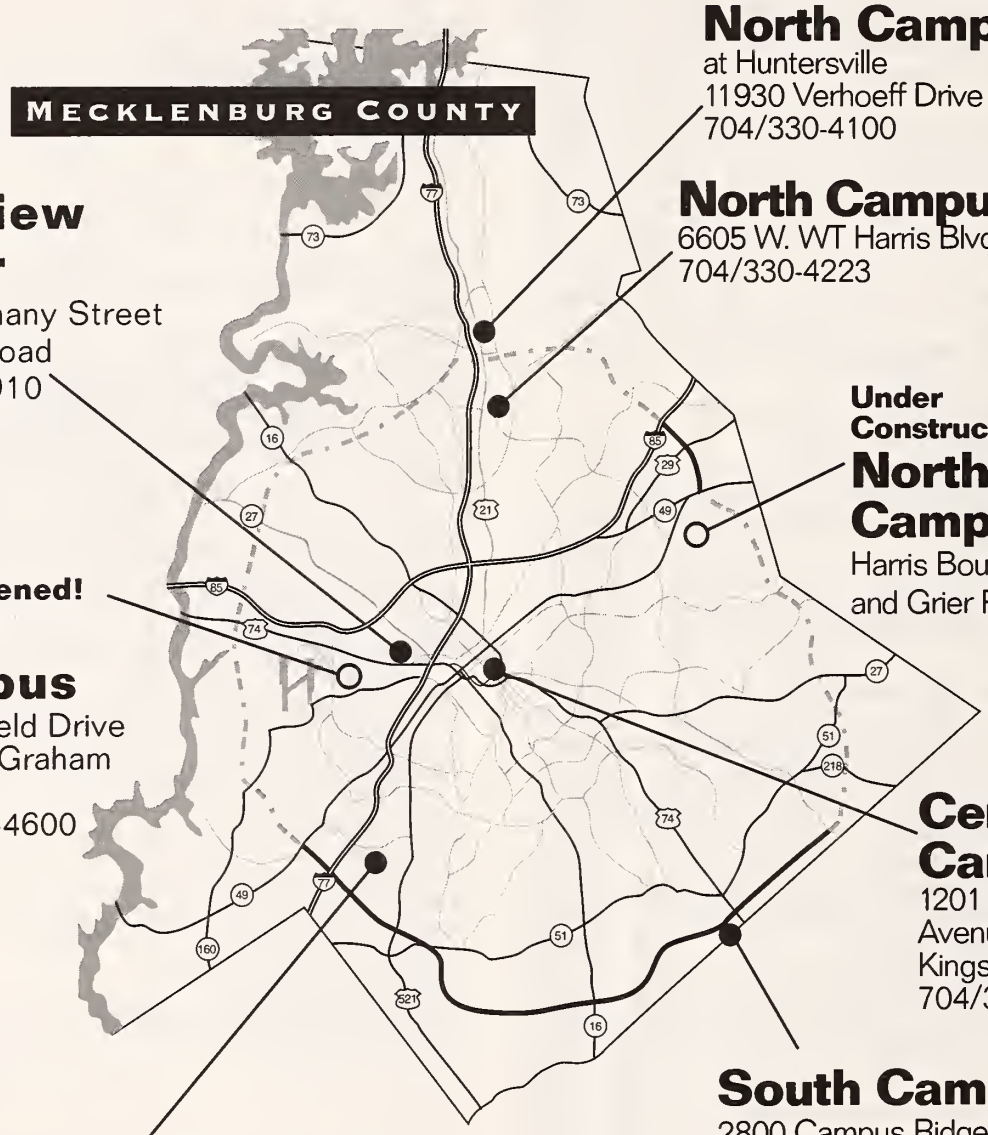
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